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AUTHOR Summers, Barbara Stodghill
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ABSTRACT

Based on surveys of military student attitudes toward American Preparatory Institute (API), the study provided information about competency-based, continuous-progress high school level instruction at API, a private high school for military adults. Students were predominantly male enlisted military personnel, the mean age was approximately 20 years, and the average student had dropped out of school during grade 10. Survey A included all 352 students enrolled in a six-week cycle at First Calvary Academy site at Fort Hood, Texas, and Survey B consisted of 60 randomly selected students enrolled in a 12-week cycle at Central College campus site near Fort Hood. Information about drop-outs or habitual absentees was not included in the study. A 29-item questionnaire was developed to quantify the students' attitudes, with frequencies for each response category converted to percentages. Overall impression from both surveys was one of positive response toward the entire API program. Students indicated an adaptability to the informal and friendly atmosphere, being encouraged by individual attention and instruction, and recognition of a difference in API's approach from the high school in which they were unsuccessful. However, students expressed conflicting time demands between school and military duties. (EA)

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MILITARY STUDENT ATTITUDES TOWARD AMERICAN PREPARATORY INSTITUTE AND COMPETENCY-BASED, CONTINUOUS-PROGRESS INSTRUCTION

by

BARBARA STODGHILL SUMMERS, B.A.

RESEARCH STUDY

Presented to the Faculty of the Graduate School of

American Technological University

in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF SCIENCE

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MILITARY STUDENT ATTITUDES TOWARD AMERICAN PREPARATORY INSTITUTE AND COMPETENCY-BASED CONTINUOUS-PROGRESS INSTRUCTION

APPROVED:

Pauline S. Blackburn

Pauline S. Blackburn, EdD
Chairman, Education Department

H. Gene Kimes

H. Gene Kimes
Dean of the University

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Chapter 1

INTRODUCTION

This study presents the results for two surveys (Survey A and Survey B) of military student attitudes toward American Preparatory Institute (API), a private high school for adults. Both surveys were conducted during the spring of 1975. The primary purpose of the study was to provide the school with information about student reactions toward program offerings and thus indicate areas where the instructional system might be improved.

STATEMENT OF THE PROBLEM

The survey study proposed to identify military student attitudes toward the competency-based, continuous-progress high school level instructional system implemented by API in 1975.

QUESTIONS TO BE ANSWERED

The following questions were specifically addressed by both surveys:

1. What is the student's attitude toward the API program as a whole?

2. How does the student evaluate the effectiveness of instruction at API?

3. How does the student evaluate the program of study and curriculum at API?

4. How does the student evaluate the counseling services at API?

5. How does the relationship between the military community and API affect the student's position of being simultaneously a student and a soldier?

6. Is the student's environment, both inside and outside the classroom, conducive to learning?

7. What are the student's specific suggestions for improvement in all aspects of the educational program at API?

The questions were not considered as mutually exclusive but overlapping. However, each question was deemed to indicate a particular aspect or set of aspects concerning the instructional system; therefore, responses would provide summary level information useful for future operations of the institution.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

The instructional program for API was unique in several ways. The students served were predominately enlisted military personnel with a mode age of twenty years. The mean age was slightly more than twenty but less than

twenty-one years. The average API student was male and had dropped out of school during grade ten. The students came from all parts of the United States, Guam, and Puerto Rico. The population was considered representative of adults that for various reasons did not complete high school. Most of the students entered API with an experiential background of academic failure. The instructional program provided for the students was categorized as a competency-based, continuous-progress instructional system. The performance objectives and criterion tests which provided the framework for the system remained constant for all alternate learning activities or "pathways" for attaining the competencies. Rather than have students attend classes for the traditional eighteen-weeks term, students attended either a six-weeks or a twelve-weeks cycle of instruction during regular military duty hours. Some students were allowed to attend more than one cycle of instruction while others returned to their regular military duty assignments. Further flexibility was allowed in that when a student mastered the required competencies for a course, he was then placed in another course which was needed to meet graduation requirements.

API became involved in an intensive curriculum developmental process in July 1974. The ultimate product of the developmental process was to be a total high school program for adult students that integrated the "traditional

academic content" with career preparation. The primary consideration for such development was to ensure that each student perceived what was expected of him, why it was expected in terms of how he might profit from his learning, and when he had successfully mastered the relevant and expected.

Although difficult to quantify, the attitudes or perceptions of the students toward such an instructional system became the central focus of the institution initiating the system. The position had to be taken that unless relevancy was perceived by the students, then curriculum developmental objectives had failed to be attained.

The initial competencies for the high school program at API were derived by August 1974. Immediately upon completion of this developmental step, instruction was oriented toward the competency statements of each course and further refinement was begun. By January 1975, the instructional system was considered stable enough to be subjected to evaluation by the students. It was considered critical to the curriculum developmental process to ascertain student reactions to the curriculum at this early stage in order to revise and modify areas which were less than successful in reaching the student.

DEFINITION OF TERMS

Definitions of the term "attitude" exist in abundance, thus indicating the multi-dimensional nature of the concept. Therefore, for the purpose of this study the phrase attitude toward API was narrowly defined as those aspects or opinions measured by the survey instrument.

The meaning of the term competency-based, continuous-progress instructional system was developed from multiple definitions. Competency-based was labeled as an instructional program that was developed on the basis of competencies. These basic competencies were behaviors which an individual should attain in order to be a productive and useful citizen in a chosen career. Continuous-progress meant an instructional program where an individual proceeded (worked or achieved) at his own rate (determined by previous learning and experiences) through a course and through courses. An instructional system was teaching by means of a systems approach (Hamreus, 1975:1), which was defined to mean:

> . . . an analytical planning and control method for designing and developing all the various instructional parts [of a problem] and their interrelationships needed to accomplish the specified outcomes.

The term cycle was used to mean a definite period of time that a student was subjected to classroom

instruction. The period of time was measured by weeks. Cycle 1H15 was a six-weeks cycle, while Cycle 2H25 was a twelve-weeks cycle.

A military commanding officer, defined to be a soldier-student's company or unit commander in both surveys, was abbreviated with the initials C.O.

The military duty assignment given an enlisted person and named C.Q. duty in the questionnaire was an abbreviation for the charge of quarters. The enlisted person assigned to C.Q. duty was the commander's representative after normal duty hours.

The high school equivalency certificate that required a passing score on tests in the areas of English, social studies, science, mathematics, and literature was referred to in the questionnaire as GED or General Education Development.

The General Test, a mental ability test given to military personnel and administered by the Army, was referred to in the questionnaire by the initials GT.

An overseas high school program for United States Army military personnel stationed in Germany was referred to as USDESEA PREP. The home office for the Nord Bayern District was located in Nuernburg (Nord, 1974).

LIMITATIONS OF THE STUDY

The purpose of the survey study was to provide descriptive data concerning student attitudes toward an instructional system that, while being operative, was not fully developed. The surveys were designed to provide information for the institution rather than for inferential data concerning competency-based, continuous-progress instruction. Research controls were applied when applicable, but were not sufficient to allow generalization of findings to populations other than the two settings investigated. Due to the inability to control extraneous variables, comparisons between student attitudes in Survey A and Survey B were not warranted. Student attitudes were rather narrowly defined by the instrument used for data collection. Information concerning the reliability and validity of the instrument were not available.

It was necessary to conduct the surveys toward the end of each cycle used in the study in order for the students to have had time to form opinions or to have developed attitudes toward API and its instructional program. Because of this necessity, it was impossible to find out the reactions of those students who had already dropped out of the program. Information about these students and those who were habitual absentees was not a part of this study.

BASIC ASSUMPTIONS

It was assumed in the survey study that:

1. The students were capable of making appraisals of API's educational program and its various aspects that they were a part of.

2. The students responded to all parts of the survey questionnaire with honesty and truthfulness.

3. The students were motivated to register for API classes for one of three reasons: they sincerely wanted to resume their education, they wanted to be relieved from regular military duties, or they were coerced by their military superiors to attend.

PROCEDURES FOR COLLECTING DATA

The methodology used in the conducting of Survey A and Survey B was similar with only minor variation in sampling procedures. Within the sections of sampling procedures, student questionnaire, and data collection are presented descriptions of research controls applied for both surveys with differences between surveys noted. Differences between the two samples by API site location and by cycle are also presented.

Sampling Procedures
for Survey A

The sample for Survey A consisted of 352 API students enrolled in Cycle 1H15. All students enrolled in this cycle were to be included in the survey. Subject mortality was slight. The instruction for Cycle 1H15 (except for science) was conducted at the First Cavalry Academy site which was located on the Fort Hood, Texas United States Army Reservation. The students in the sample were enlisted and non-commissioned officer personnel assigned to the First Cavalry Division. The cycle of instruction was six weeks in length with three (3) two-hour class periods per day, Monday through Friday. The first class period of the day began at 7:30 o'clock in the morning and the third class period began at 1:30 o'clock in the afternoon. Most of the students enrolled in Cycle 1H15 attended two or three classes each day. Of the 352, less that four percent of the students were enrolled in only one class. The counseling staff for the cycle consisted of one API counselor and six Fort Hood Army Education Center counselors.

Sampling Procedures
for Sample B

The sample for Survey B consisted of sixty military students enrolled in Cycle 2H25 at API. Subjects to be included in the survey were selected by use of simple random

sampling procedures. This sampling procedure ensured representation for the total population of 194 students while decreasing sample size. The instruction for Cycle 2H25 was conducted at the Central Texas College campus site, thus removing the military student from his work environment. Central Texas College is located on Texas State Highway 190 midway between Killeen, Texas and Copperas Cove, Texas and is adjacent to the Fort Hood Army Reservation. The students in the sample were from various Fort Hood military units with the exclusion of the First Cavalry Division. The military unit that provided the largest number of students at this site was the Second Armored Division. The instructional period for the cycle consisted of two classes per day beginning at 12:30 o'clock in the afternoon and closing at 5:30 o'clock, Monday through Thursday, for twelve weeks. Each class period was two and one-half hours in length. Students were enrolled in two classes. The counseling staff for the cycle consisted of one API counselor on site.

Student Questionnaire

The instrument used to quantify the students' attitudes consisted of a twenty-nine item questionnaire that was patterned after one developed by members of the Nord Bayern District USDESEA PREP staff. Adaptations consisting of changes, additions, and deletions were made. A copy of the instrument is presented in the Appendix. The relationship

between specific items within the instrument and the questions to be addressed by the survey were:

1. Question One: What is the student's attitude toward the program as a whole (Questionnaire items 1, 2, and 3)?

2. Question Two: How does the student evaluate the effectiveness of instruction (Questionnaire items 4, 5, 6, and 7)?

3. Question Three: How does the student evaluate the program of study and curriculum (Questionnaire items 8, 9, 10, 11, and 12)?

4. Question Four: How does the student evaluate the counseling service (Questionnaire items 13, 14, 15, 16, and 17)?

5. Question Five: How does the relationship between the military community and API affect the student's position of being simultaneously a student and a soldier (Questionnaire items 18, 19, 20, and 29)?

6. Question Six: Is the environment, both inside and outside the classroom, conducive to learning (Questionnaire items 21, 22, 23, and 24)?

7. Question Seven: What are the student's specific suggestions for improvement (Questionnaire item 25--also, Student Suggestion Sheet and Suggested Course Sheet attached to Student Questionnaire)?

General information questions were asked to assist in survey interpretation (Questionnaire items 26, 27, and 28).

Scaling for the instrument varied from a two-point scale for some items to a free response made for other items. One response was required for items one through twenty five. Items twenty six through twenty nine required one or more responses. The selection of the scale for a particular item was determined by examination of the item's intent.

As previously mentioned, reliability and validity information for the instrument was not available.

Data Collection

The data collection procedures for Survey A and Survey B were, for all practical purposes, considered identical. The researcher using the same standard directions administered both surveys. A summary of each data collection period is presented by survey and indicates deviations between procedures used.

Survey A. The student questionnaire was administered to 352 API students at the First Cavalry Academy site during the last week of Cycle 1H15, February 17 through February 21, 1975. The testing was conducted over a time span of three days and in six groups ranging in size from twenty-three students to eighty-three students. Written directions for answering the questionnaire were given to

each student and then read aloud, by the tester, to each group. It was stressed that all answers and suggestions would be strictly confidential, and that only the results as a whole group would be made available to API staff and other interested parties. Each group was tested during the morning class hours in a small auditorium at the First Cavalry Academy site. Precautions, such as the absence of military authorities and API staff during testing, were taken to ensure that the test conditions for each group were uniform and that students could feel free to respond openly to all items.

Survey B. The student questionnaire was administered to sixty API students at the Central Texas College campus site during the last two weeks of Cycle 2H25, April 29 through May 6, 1975. The testing was conducted over a time span of five days and in group(s) ranging in size from one to twelve student(s). Written directions for answering the questionnaire were given to each student and then read aloud, by the tester, to each group. It was stressed that all answers and suggestions would be strictly confidential, and that only the results as a whole group would be made available to API staff and other interested parties. Each group was tested during the afternoon class hours and in a classroom that was not a part of API's facilities. Precautions, such as the

absence of API staff and faculty for Cycle 2H25, were taken during testing to ensure that the testing conditions for each group were uniform and that students could feel free to respond openly to all items.

PROCEDURES FOR TREATING DATA

The frequencies of each response category for each questionnaire item were recorded. These frequencies were then converted to percentages. Further statistical analyses were not conducted due to the scaling level of the instrument and non-comparability of the two surveys.

Chapter 2

A REVIEW OF RELATED LITERATURE

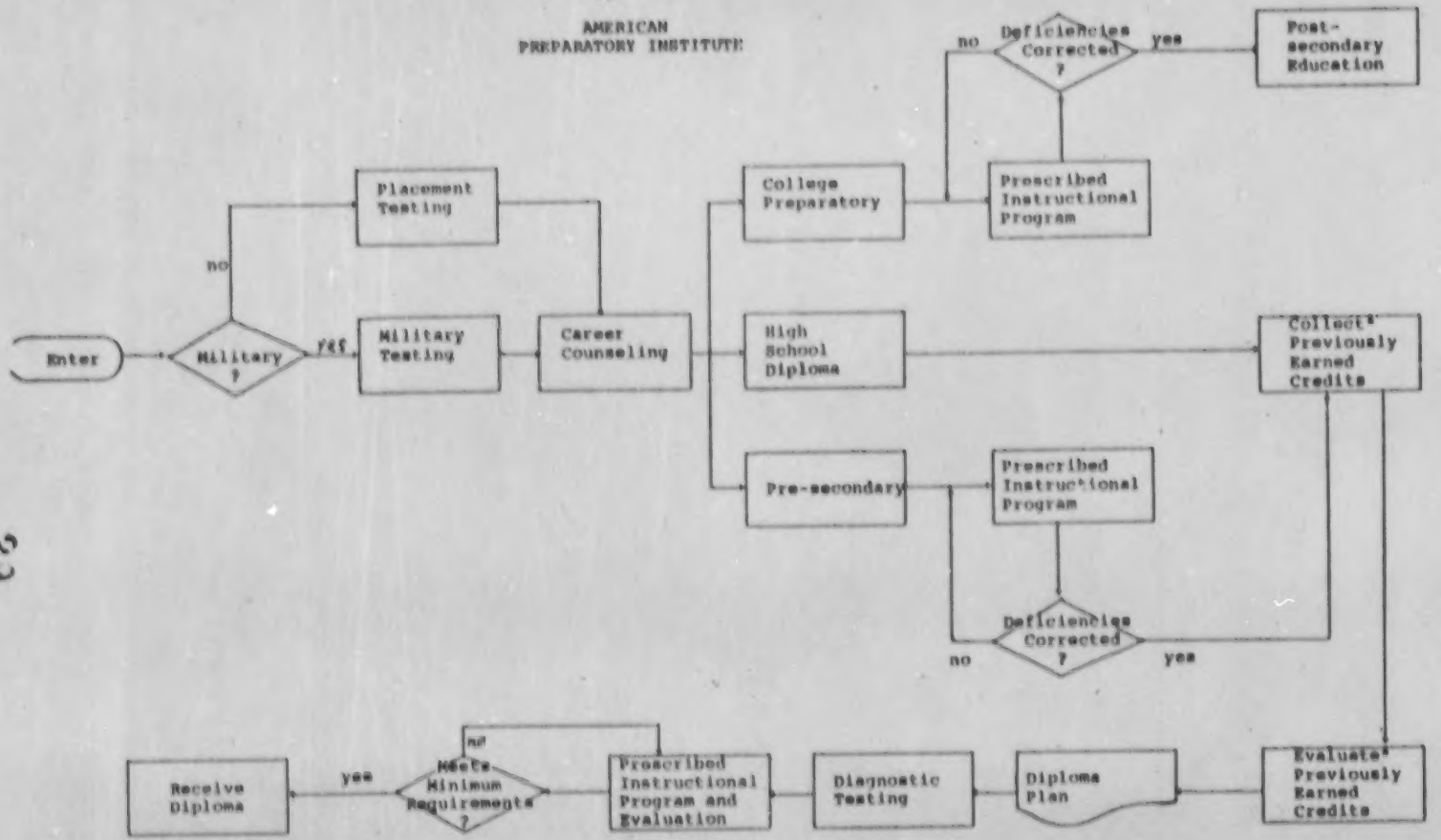
An evaluative study of an educational institution includes the attitudes and views of its students toward the courses of study offered and the instructional methods used in teaching these courses. To assess the results of such a study necessitates some understanding of the type of student with which the institution is dealing as well as what it is he is asked to evaluate. Due to the uniqueness of API and its student body, most of the literature reviewed was only generally related to this survey study. Figure 1 displays the alternate paths a student might have taken when he entered API (1974:15). The three areas selected as being the most relevant and applicable to API and its students were adult education, competency-based, continuous-progress instruction, and career education.

Adult Education

The term, adult education, has as many meanings as there are adult educators. A general definition, attributed to Knowles by Gordon (1971:9), might be that it consists of ". . . activities organized specifically for learning by

Figure 1

AMERICAN
PREPARATORY INSTITUTE



*1. High school transcripts
2. Extension study from accredited sources
   - correspondence study
   - television course work
   - study abroad
3. Other credit which can be validated by examination
   - prior work experience and training
   - military service

Figure 1

Student Paths at API

adults . . ." or as he (Gordon, 1971:9) cynically suggested "'. . . anything done by anyone' . . .". The National Center for Education Statistics defined persons sixteen years of age or older as adults in its statistical tables for adult education (Grant, 1975).

Changes in the needs of society have always tended to guide the direction of adult education in the United States from the extension movement in the 1880's to part-time students, evening schools, correspondence courses, conferences and workshops, mass media, off-campus classes, and finally to what is today referred to as continuing education programs. The intent of these programs was to be, ideally, related continuously to the needs of the people in the community. The needs most often dealt with have become those associated with people's jobs and stages of life (Hesburgh, 1973). Malcolm Knowles, considered by many as the outstanding leader in the modern-day practice of adult education, has brought further attention to this area of education by assigning it a new name--andragogy as opposed to pedagogy. Knowles (1970:34) stated that the mission of adult education is ". . . to develop a total environment conducive to human growth and fulfillment--an educative community." One might wonder if and why there is a need for adult education since this country is committed to twelve years of free public school education for every child and compulsory attendance through age fifteen. Most

educators have agreed with Knowles that there is a need and that it is even greater today than in the past because of our rapidly changing society. Facts learned in youth are insufficient and skills learned in youth quickly become obsolete because of new technologies. The Carnegie Commission on Higher Education (1973) succinctly pointed out the need and, indeed, the necessity for lifelong learning.

Further justification for adult education programs was found in statistical reporting. The Standard Education Almanac (1973/74) showed by a graph that in 1972, as reported by the United States Bureau of Census, over 40 percent of the population twenty-five years old and over had received less than four years of high school education. In 1973 (Grant, 1975), more than three million young people graduated from our nation's high schools, while another 784,000 dropped out prior to graduating. In addition, 126,000 fourteen and fifteen-year olds dropped out. Out of the graduates, 1,634,000 joined the civilian labor force. Their jobless rate was 12.3 percent compared to 22.2 percent for the dropouts.

The need for adult education has been indicated by much documented evidence that questions the quality of education dispensed by most American schools; therefore, a majority of Americans need another treatment of education. One of the more recent reports (Killeen, 1975:11A, cols.

7-8) was a nationwide survey, paid for by the National Center for Educational Statistics, that covered 34,000 persons aged 17 and another 4,200 adults. Quoting from the news release:

> It found 'less than one-half of the 17-year olds and adults could successfully determine the most economical size of a product. Only 10 percent of the 17-year-olds and 20 percent of the adults could correctly calculate taxi fare. One percent of the 17-year-olds and 16 percent of the adults could balance a checkbook.'

The release reported the director of the survey as saying: "'too many students apparently fail to see the relationship between math courses in school and the use of math in everyday living.'" The results in another report (Texas State, 1975:148) on adult competency, a survey conducted in Texas, found that:

> Because of inadequate or inappropriate schooling, low incomes, limited job opportunities, and possibly language difficulties, about two-thirds of adults in Texas with Spanish surnames and one-half of the Black population are estimated to be functionally incompetent. One-fifth of the White population also performs inadequately on required indicators.

Adult education is obviously a means of compensating for these educational deficiencies suffered by our population as youths. There are virtually no opponents to adult education per se; however, the growing number of voices with solutions or methods to how its needs should be met are threatening to be as numerous as those with solutions for our nations's public school ills. In addition to the already implemented newer concepts of the open university and

educational television, much emphasis has recently been placed on training the adult educator in the use of the mass media. Using the media as a means of instructing adults can be a powerful catalyst for community change as stated by Dorothy Henaut (1971:124). She concluded with:

> Those educators who have access to communications technology within their institutions have a unique chance to teach these people [the citizens in a community] how to de-mystify the media and turn them into tools for making better communities.

This type of instruction has raised questions about who controls the programming. It is Henaut's belief that the local community will ultimately decide--a similarity to the belief that society dictates what is taught in the traditional classroom.

In a scathing indictment of American educational and intellectual resources at the higher educational level, Ronnie Dugger (1974) expressed the strong opinion that the power of decision has been taken away from educators and been placed in the hands of businessmen and politicians. He offered alternatives to the Carnegie Commission's recommendations on higher education that were applicable, with some modification, to all educational levels as were his suggested five general principles for the future framework of new kinds of institutions. As a dispenser of mass media (newspapers as well as books), rather than a professional educator, Mr. Dugger's views have brought divided opinions within the profession.

However, his five principles were not unique or even new but considered to be the beliefs of all altruistic educators; therefore, worthy of mentioning. By paraphrasing and liberally condensing, Dugger's (1974) suggestions were interpreted as meaning: the purposes of education should be chosen from those of a multitude of people rather than from a select few; there should be a nationally standard classification of all learning institutions so that students and parents would know exactly what they were getting; there should be a shift of stress from classroom lectures to reading as a basic activity of learning; democratic education should rid itself of knowledge as snobbery in order to develop a transclass interest in learning; and finally, the aim in America should be to adopt a democratized method of learning for all students.

Competency-Based, Continuous-Progress Instruction

Reasons or justifications for adult education programs and previously cited in this report could also be cited as reasons for changing the types of instructional methods used in our nation's classrooms. The attitudes of today's students have changed (Nygaard,1973) causing frustration and impatience with the so-called conventional and traditional. Obsolescence of course content and irrelevancy of subject matter (Freeland, 1973) has contributed to the dropout rate.

There has been great variance in defining and in measuring attitudes (Shaw, 1967). A comprehensive definition of attitude offered by Shaw and Wright (1967:3) was:

> . . . A relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or class of social objects.

If the student's evaluative beliefs (attitudes) about his school were positive and he perceived the function of the school as supportive of his value orientation, he would be more likely to perform well and be happy with his school experience (McSweeny, 1973). Self-confidence and the need for achievement were perceived as characteristics important in assessing competent job behavior (Korman, 1973).

The systems approach for designing an instructional program was considered by Houston (1972) to be the best and most viable for teacher training, especially when applied to competency-based instruction.

Hamreus (1975:4) put forth the following question and its answer:

> Why systems approach? Because it is the most powerful and efficient means presently available for determining precise learning requirements and arriving at the most effective plan for eliciting the desired learning outcomes in an orderly fashion. It enables us, in the words of Meredith Crawford, "to separate the 'need to know' from the 'nice to know.'"

Butler (1972:52) spoke to the problem of the ever-changing needs of the classroom when he said:

> Actually, an instructional system is never complete, because it is a dynamic process, not a static product . . ., an instructional system by its very nature involves continuing and concurrent reassessment of the efficiency and effectiveness of the instruction . . . .

The flowchart displayed in Figure 2 was the process model used in developing the curriculum at API (Smith, 1974). The resulting instructional system was based on competency statements, behaviorally expressed, that told the student what was required in real life. Each competency was translated into the educational setting by the development of a performance objective that told the student what was expected of him in the classroom. Individualized learning materials and activities told him how to attain the objectives. The system provided pre-, self-, and post-assessment. When a stated criteria of acceptance was met by means of criterion-referenced tests, the student progressed to the next selected objective. Decisions were made by both student and instructor, with a greater amount of responsibility placed on the student. Course credit was awarded when the student demonstrated mastery of a prescribed number of objectives for that particular course. This flexibility allowed the student to progress as fast as he could based upon his own initiative and motivation. In this type of instructional system achievement levels were held constant from student to student and time varied from student to student (Smith, 1974).

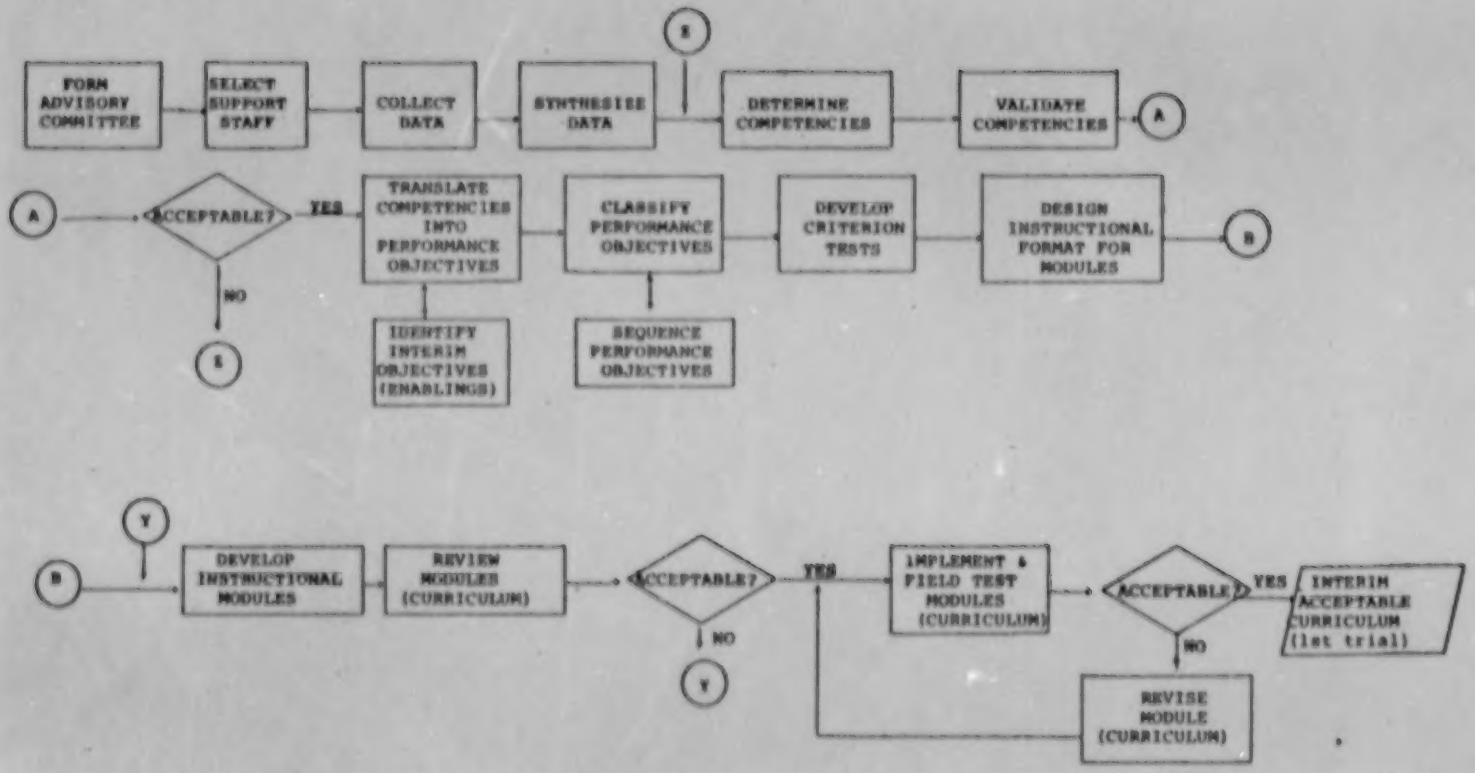


Figure 2

A Sample System

Virtually everything written by educators has mentioned the need for individualized instruction (Dunn, 1971) that helps develop the less tangible educational goals classified in the affective domain (Houston, 1972). Affective objectives were inherent in API's competency-based, continuous-progress instructional system. The development of student characteristics such as self-reliance, self-confidence, independence, ability to evaluate one's self, and self-direction were classified in the affective domain by Kapfer (1971). In a study by Stevens (1973) a significant relationship was established between an individual's personality characteristics and his pattern of job-seeking behavior. Independence was one of the characteristics of individuals who had specified job goals and self-actualized behavior, thereby enabling them to be highly successful in obtaining jobs. Competence in the decision-making process, which is highly developed in a competency-based, continuous-progress instructional system, should be considered essential in preparing students for meeting society's need for new and novel solutions to its problems (Willard, 1973).

When the student is allowed to earn credit by proving his mastery of a performance objective by only showing competence in the performance, the traditional educational requirements of prerequisite courses becomes virtually unimportant. The Carnegie Commission (1973)

listed in its priorities for action that more attention be given in the evaluation of experiential learning and that there should be more respect for competence however obtained. In an article about individualizing instruction, Dr. Finch (1974:28) concurred:

> . . . , since the relationship between learning and student background characteristics is somewhat questionable, the teacher might do well to minimize or even eliminate prerequisites--the "hoops" a student must jump through before he is qualified to receive a particular instructional unit.

He also endorsed adaptable instructional systems because they were typically learner-centered and possessed evaluation and feedback.

Career Education

The term "career education" officially became a part of education's vocabulary in the early 1970's--at about the same time of the ending of the student-protesting 1960's. Its most recent definition, offered by the United States Office of Education (1975:4), stated that "'career education' is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living."

Before career education, education's answers to work relevancy were thought to be in the fields of vocational guidance, technical training, business education, and others bearing similar names. Prior to about the last half of 1974, proponents of career education spent most of

their time saying that it was not any of these fields. Past Commissioner of Education, Sidney P. Marland, Jr. (1971) urged educators to end their academic snobbery for useful education and answer the nation's call for educational reform with his rather limited explanation of how to go about it with this new all-encompassing concept called career education. Since that painful period of conception, the United States Office of Career Education Director Kenneth Hoyt was instrumental in legitimizing the birth of this new educational way of life. His remarks to various groups all over the United States dating from September 1974 were not defensive but evidenced an assertion of the Congressional mandate for career education (Hoyt, 1975a). In summarizing career education's basic assumptions for decisions to be made by teacher education institutions, Hoyt (1975a) suggested that there were four that held the most serious implications. They were condensed to mean: there should be close relationships between education and the world of paid employment, the word "work" should be used in career education, there should be no educational isolationism in formal education, and all professional educators should be leaders in implementing the career educational concept.

The goal of American education that every young person completing grade twelve be ready to enter higher education or a useful and rewarding employment can be

reached by career education according to its proponents. Feldman was quoted by Daniels (1975:7) as saying:

> . . . The fundamental concept of career education is that all educational experience--curriculum, instruction, and counseling--should be geared to preparation for economic independence, personal fulfillment, and appreciation for the dignity of work . . . .

Daniels extended the belief that the decision-making process inherent in career education would be developed throughout a person's school experience.

A special issue of the American Personnel and Guidance Association's Journal (May, 1975), devoted to career development, presented a comprehensive view of career education by outstanding educators. It covered conceptual models, illustrative developmental programs, methods for implementation, and implications for the future. These areas included the hows and whys for all ages from kindergarten throughout adult life. There was some emphasis on new strategies for implementation of career development competencies brought about by the focus on accountability. In one of the special issue's essays, Levenstein (1975) pointed out that television should take corrective measures to portray more realistic occupational information and to educate children to believe that work is meaningful, dignified, and adds value to human existence. In another essay of the special issue journal, Fox (1975) discussed the requirements of affective learning in successful

career education and its potential in instructional television.

A comprehensive modular career development program that emphasized a continuous process of testing its modules was proposed by Robert Smith (1975). In addition to field-tested career modules that were incorporated within the curriculum for both the cognitive and affective domains, he considered a career resource center and career units for academic areas to be essential to his porposed system.

The Skyline Career Development Center in Dallas has become a national model, according to Jack Muir (1974: 25), and "among its twenty-seven career 'clusters' is the 'World of Fashion' which involves students in every phase of fashion production and marketing." The Center was described by Muir as having such unique teaching facilities as a color television studio, a computer center, an airplane hangar, and other special purpose areas associated with its career clusters.

Florence Steiner (1974:191) saw career education " . . . as a means of investing foreign languages with an importance that is not currently attributed to them." She perceived that career education implied major curriculum revisions that recognized foreign language skills as important to career possibilities.

The recognition of infusing and integrating career education with all disciplines was interpreted by its

earliest advocates (Marland, 1971) to be a blending of the vocational with the academic. The clamor for such a blending by those outside of education has continued. Melvin Belli (1975:4), an attorney famous for defending infamous criminals, called our prisons the " . . . greatest captive student bodies anywhere in the U.S." He further stated in reference to what he considered an ideal program of education for prisons:

> I'd make all sorts of classes available at good old Convict U--certainly the humanities, language, music, not just machine shop and woodworking. The latter wouldn't do the job.

The initial nationwide push for educational reform by developing and implementing the career concept has not been made without its opposition, even within the movement. Criticism was well articulated by LaDuca and Barnett (1974) who were formerly Assistant Director and Director, respectively, of Career Education in New York City. A large amount of their criticism was aimed at the Comprehensive Career Education Model (CCEM), a nationwide effort directed by the Ohio State University Center for Vocational and Technical Education. They claimed (LaDuca, 1974:23) CCEM educational goals made no " . . . explicit reference to learning theory, pupil performance parameters, model diffusion strategies, evaluation schemes, or teaching methods." The CCEM requirement that career choices be made before grade ten was met with violent opposition by most behavioral scientists, according to LaDuca and Barnett.

They further accused career educationists of remaining mute on the issue of work being undignified, of contradicting career development theory and research, of failing to do reality testing of their own constructs, and of having no systematic review.

A nationwide survey conducted by research psychologists in 1973 (Noeth, 1975:217) to assess the career development status and needs of American youth indicated ". . . that the student-expressed need for help with career planning is in sharp contrast to the amount of help the students report they have received."

Hoyt (1957b) and the United States Office of Education have continued to affirm that career education can successfully meet acceptable educational goals, however they admit that it (U.S., 1975:1) ". . . is properly viewed as one of several possible responses that could be given to . . ." a call for educational reform.

This is not a completely comprehensive review of all the literature available in the areas selected to be related to the present study. It is, however, representative of the thinking within the three areas which was judged by the researcher to be the most relevant and applicable to API's educational program and its students.

Adult students, whether military or civilian, that were school drop-outs usually exhibit a strong need for the development of those characteristics classified in the affective domain of educational goals. An educational

program that has developed its courses, both academic and vocational, to be career-oriented and centered around a systems approach to competency-based, continuous-progress instruction was chosen by API to best meet these goals as well as those in the cognitive domain. Such a program was also deemed best for satisfying individual differences, ever-changing needs of society, and on-going needs for internal assessment.

The literature reviewed reveals a lack of definitive studies and research dealing with the educational concepts and methods practiced at API. The lack is partially due to the short amount of time since such programs have been implemented nationwide, causing long-range studies an impossibility. It is hoped that this research study will lend motivation for further investigation into these methods.

Chapter 3

RESULTS OF THE STUDENT QUESTIONNAIRE

The results for the study are presented by survey. For Survey A and Survey B the responses for each of the study questions are presented by questionnaire item. The pattern of item responses are summarized to indicate the students' perception of API's accomplishments and possible areas requiring improvements.

Results of Survey A

Survey A identifies the attitudinal study conducted during API's Cycle 1H15 of 352 military students at the First Cavalry Academy site. The study was based upon seven specific questions addressed by a twenty-nine item questionnaire that also included general information items pertinent to survey interpretations.

Question One. What is the student's attitude toward the program as a whole? To obtain an impression of the student's evaluation of API, he was asked three questions that were intended to elicit a comparison of API and other secondary schools.

Questionnaire item number one asked the student if there was a difference between API classes and classes he

had previously attended while in the military. Table 1 displays the responses to this item. The "No" responses (N = 71) included some students that had previously attended API, thus classes were still about the same for these students. The frequency of returning students could not be ascertained, since the questionnaire did not ask for information that would distinguish between students attending for the first time and those that had previously attended API.

A substantial number of students, 42 percent, had not attended other schools while in the military and therefore could not make the required comparison. However, of the 202 students that could and did respond, 64 percent indicated that API was different.

Table 1

Difference Between API And Other Schools Attended While in Military

Responses	Number	Percent
Yes	131	37.22
No	71	20.17
Have not attended other schools while in military	148	42.05
Left blank	1	0.28
More than one response	1	0.28
Total	352	100.00

Questionnaire item number two asked the student if there was a difference between API classes and classes he had attended as a civilian. Responses to this item are shown in Table 2. A large majority of students, 87 percent, perceived a difference between their API classes and classes they had attended as a civilian.

Table 2

Difference Between API and Civilian Schools

Responses	Number	Percent
Yes	306	86.93
No	46	13.07
Total	352	100.00

Item number three on the questionnaire required the student to indicate his desires about returning to API for instruction. Table 3 presents the responses to this item. A total of 324 students indicated that they would return to API for additional instruction. Only 7 percent indicated they would not return. The intent of the third item was found to be less than desirable with respect to interpretation. Although not specifically indicated from item wording, positive responses were interpreted to indicate positive desire rather than compliance. In addition, it

was not clearly indicated by the item wording the response for a student that was completing graduation requirements during that cycle. It was possible that such students responded with the negative alternative due to his desire to graduate.

Table 3

Would Return for Additional API Classes

Responses	Number	Percent
Yes	324	92.04
No	26	7.39
Left blank	2	0.57
Total	352	100.00

The results of the three questionnaire items addressed in survey question one were summarized as: the students perceived a difference in instruction offered by API and that of other military and civilian schools, and they desired to continue with API.

This pattern of responses relating to the evaluation of the total API program was interpreted as a definite preference of the sample for the competency-based, continuous-progress instructional system used by API.

Question Two. How does the student evaluate the effectiveness of instruction? To determine the student's evaluation of classroom instruction, he was asked four questions related to his own progress as a result of having attended API classes.

Questionnaire item number four asked the student if he thought class time was used effectively. Responses to this item are presented as Table 4. Less than 2 percent thought that class time was never effectively used, while 82 percent thought that it was effectively used most or all of the time.

Table 4

Class Time Used Effectively

Responses	Number	Percent
Never	7	1.99
Some	55	15.63
Most	160	45.45
All	130	36.93
Total	352	100.00

Item number five asked the student if his skills and abilities in the subject areas he had studied had been improved. Table 5 summarizes the responses for this item.

A majority of over 56 percent responded that their skills and abilities had improved "Much," over 37 percent believed that they had improved "Some," and less than 6 percent indicated that they had improved very little or none at all.

Table 5

Improvement of Skills and Abilities

Responses	Number	Percent
No	4	1.14
Very little	16	4.55
Some	132	37.50
Much	199	56.53
Left blank	1	0.28
Total	352	100.00

Questionnaire item number six asked the student if the subjects or courses he had studied at API had been made meaningful to his life. Responses to this question are displayed in Table 6. Most or all of the courses studied at API were found meaningful to 52 percent of the sample for Survey A. Over 40 percent found only some of the courses meaningful, while 7 percent found the courses studied having never been made meaningful to their lives.

Table 6

Meaningfulness of Subjects to Student's Life

Responses	Number	Percent
Never	25	7.10
Some	142	40.34
Most	99	28.13
All	84	23.87
More than one response	1	0.28
Left blank	1	0.28
Total	352	100.00

Item number seven requested the student to indicate the degree to which he had received individual help in his classes. Table 7 presents a summary of the responses to this questionnaire item. Over 40 percent of the sample indicated that individual help in classes had been received all or most of the time. A majority, 52 percent, responded to "Some" and 6 percent to "Never."

Table 7

Individual Help Received in Classes

Responses	Number	Percent
Never	21	5.97
Some	184	52.27
Most	77	21.88
All	69	19.60
Left blank	1	0.28
Total	352	100.00

The student responses for the four items pertaining to the effectiveness of instruction indicated a consistency between perceived improvement of skills and abilities, and effective use of class time--the majority responding to positive categories for both items. The meaningfulness of courses did not parallel this consistency in that 40 percent of the students found only some courses meaningful. While most students in the Survey A sample had frequently received individual help in the classroom, some students did qualify their responses with statements such as: "If needed," "if you ask," "never asked for it," "teachers too busy," and "you have to wait in line." These qualifying

remarks indicated individual differences among students with respect to assistance as well as differences among classrooms.

In general, the questionnaire responses relating to the effectiveness of instruction (Tables 4, 5, 6, and 7) indicated that the students perceived their instruction as effective; however, some courses were not found meaningful for all students.

Question Three. How does the student evaluate the program of study and curriculum at API? The student was asked to check at the top of the questionnaire all courses that he had ever been enrolled in at API in order to assist in interpretation of the item responses addressed to this question. Then, in order to obtain an impression of the student's evaluation of API's program of study and curriculum, five questions were asked concerning his personal preferences and feelings about the subjects he had studied and the classes he had attended at API.

The frequencies of courses ever having been enrolled in at API by Survey A sample are shown in Table 8. The average course load per student was slightly more than three subjects. Over 80 percent of all the students in this sample had been enrolled in English and math classes at API. Other courses enrolled in, from largest frequency to smallest, were history, government, geography, reading,

and science. Some of the students in this sample had attended API during earlier cycles; thus accounting in part for the high number (N = 1,084) of responses recorded in Table 8.

Table 8

Course Enrollments for Survey A

Courses	Number (N) responses	Percent of students (N/352)
Science	28	7.95
English	293	83.24
Reading	83	23.58
Math	285	80.97
Government	131	37.22
History	152	43.18
Geography	104	29.54
Left blank	8	2.27
Total	1,084	307.95

Questionnaire item number eight asked the student if the subjects he had studied were on his level of understanding. Table 9 shows the responses to this item. Over 73 percent responded "Most" or "All," about 24 percent

responded "Some," and less than 2 percent responded that the subjects were never geared to their level of understanding.

Table 9

Subjects Geared to Student's Level

Responses	Number	Percent
Never	5	1.42
Some	84	23.87
Most	123	34.94
All	134	38.07
Left blank	3	0.85
More than one response	3	0.85
Total	352	100.00

Item number nine on the questionnaire asked the student if his needs and interests had been met by the subjects he had studied at API. Responses to this item are given in Table 10. About 92 percent of the responses were equally distributed over the three alternatives--"Some," "Most," and "All." The "Never" alternative received a percentage of slightly more than 5 percent.

Table 10

Subjects Meeting Individual Needs and Interests

Responses	Number	Percent
Never	18	5.12
Some	119	33.81
Most	106	30.11
All	106	30.11
Left blank	2	0.57
More than one response	1	0.28
Total	352	100.00

The student was asked in questionnaire item number ten to indicate which one of the subjects studied at API he had liked most of all. The subjects offered by API at the First Cavalry Academy site during the time of this survey are listed in Table 11 as well as the responses to item ten. Math was the most frequently selected subject with over 32 percent. The next most liked subject was English which received over 20 percent of the responses. The remaining most liked subjects in order of preference were government, geography, history, reading, and science. More than 10 percent of the students marked two or more alternatives.

Table 11

Most Liked Subject

Responses	Number	Percent
Science	7	1.99
English	73	20.74
Reading	24	6.82
Math	113	32.10
Government	41	11.65
History	26	7.38
Geography	29	8.24
Left blank	3	0.85
More than one response	36	10.23
Total	352	100.00

Questionnaire item number eleven requested the student to select one subject that he had studied at API that he liked least of all. Table 12 presents these selections, with English receiving the greatest frequency of about 27 percent. The next least liked subject was math, followed by history, government, geography, reading, and lastly, science.

Table 12

Least Liked Subject

Responses	Number	Percent
Science	13	3.69
English	94	26.70
Reading	14	3.98
Math	72	20.45
Government	37	10.51
History	56	15.91
Georgraphy	34	9.66
Left blank	12	3.41
[None]	9	2.56
More than one response	11	3.13
Total	352	100.00

The frequencies reported in Tables 11 and 12 reflect the varying enrollment among subject matter areas. To adjust for this enrollment trend, the frequencies were converted to percentages with the frequencies reported in Table 8 as the denominator. The percentages provided an index of the number of students enrolled in a subject that found that subject "most liked" or "least liked." The percentages are presented in Table 13. Three rank-orders

of the courses were made with respect to maximum percentage of responses for course rating categories. For the first rank-ordering of courses the neutral responses were considered positive and the courses were ordered from the highest positive percentage to the lowest possible percentage. The first ranking of courses was: reading, math, government, English, geography, history, and science. The second rank-ordering consisted of considering neutral responses as negative and ordering the courses from lowest percentage of negative responses to highest percentage of negative responses. The second ranking from most positive to least was: math, government, reading, geography, English, science, and history. The third rank-ordering considered neutral responses as corresponding to the largest percentage of either positive or negative. This resulted in the following order, from most positive to least positive: reading, math, government, geography, English, science, and history. Thus, course ranking varied according to the position taken in interpreting the data. To summarize the three rankings, each course was finally ranked according to its mode ranking on the three orderings. Using this criteria, reading received the most positive response with math, government, and geography being ranked second, third, and fourth, respectively. English, science, and history were less positive and received ranks five, six, and seven, respectively.

Table 13

Course Ratings by Percentage of Enrollment in Cycle 1H15

Course	Number	Rating		
		Least liked percent	Neutral percent	Most liked percent
Science	28	46	29	25
English	293	32	43	25
Reading	83	17	54	29
Math	285	25	35	40
Government	131	28	41	31
History	152	37	46	17
Geography	104	33	39	28

The multifactor nature of the course-ranking data is displayed graphically as Figure 3. The percentages by rating category are presented on a positive to negative scale. Each course was located on the scale by evenly distributing the neutral responses in both positive and negative directions. Magnitude of categorical response was indicated by the size of the category. As indicated in Figure 3, math lies in the most positive position while history lies in the most negative position. Comparison of the relative size of the neutral areas indicates that

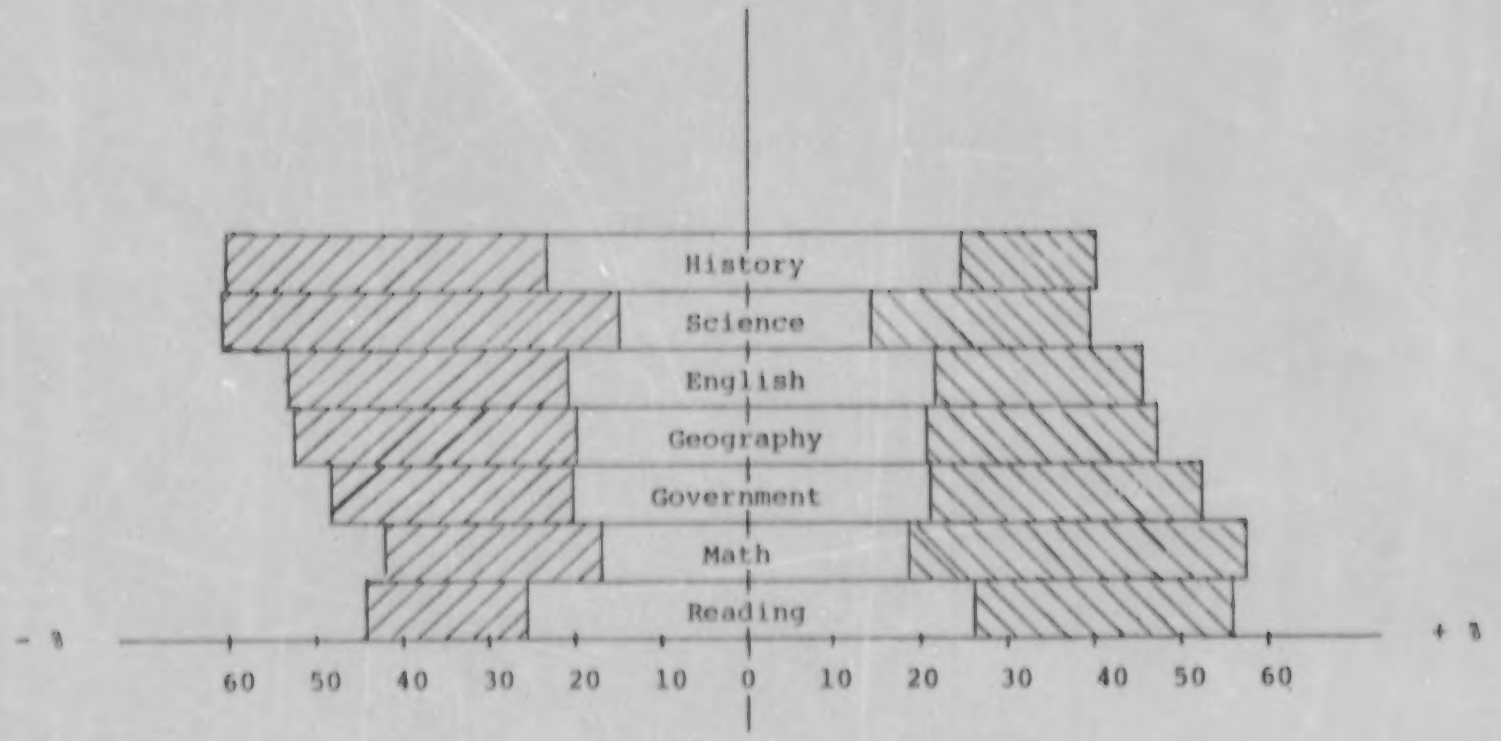


Figure 3

Percentage of Positive, Negative and Neutral Reactions by Course for Survey A

reading and history were the most non-reactive courses while math and science produced the maximum reactions.

In questionnaire item number twelve the student was asked to select the class that he had liked most while attending API. The intent of this item was to provide the student with the opportunity to make a distinction between class and subject matter. Selections for this item are shown in Table 14. About 30 percent of the sample liked math class most of all, while only slightly less chose their English class. The remaining most liked classes in order of preference were government, geography, history, reading, and science. Nearly 6 percent of the students selected more than one class. The percentages of the most liked class to subject enrollment paralleled the percentages for the most liked subject, thus indicating that the students did not make a distinction between subject and class.

Table 14

Most Liked Class

Responses	Number	Percent
Science	6	1.70
English	98	27.84
Reading	23	6.53
Math	104	29.55
Government	39	11.08
History	28	7.95
Geography	29	8.24
Left blank	4	1.14
More than one response	21	5.97
Total	352	100.00

In order to properly interpret the responses shown in Tables 8-14 and their relationship to survey Question Three, it must be noted that the survey questionnaire did not provide for information that would distinguish between students attending API for the first time and students that had previously attended API. Some of the Survey A students were students that had attended API in previous cycles when only math, English, and reading were offered.

The responses in Table 35 on page 80 show that about 20 percent of the sample was probably enrolled in special GT and GED classes instead of the diploma-bound classes. These special classes offered only the subjects of math, English, and reading; consequently, students who fit that category contributed to the high number of responses in math and English for those questionnaire items that related to subjects studied and classes attended. Another contributing factor pertaining to the distribution of responses in Tables 8-14 was that students were encouraged to earn their required quarter credits for graduation in math and English first, before enrolling in other courses. Students from Survey A that were enrolled in science were transported by the military to the Central Texas College campus site in order to attend the class.

In the competency-based, continuous-progress instructional system practiced at API, the diploma-bound student was transferred to another class as soon as he had earned the quarter credits required for a particular subject. This type system enabled a student to attend more classes throughout the length of a cycle than the number of class periods he was enrolled in per day.

A significant number of students had difficulty responding to questionnaire items ten, eleven, and twelve as indicated by the higher number of blanks and multiple responses in the corresponding Tables 11, 12, and 13. Some

students wrote in that they liked several or all of the subjects studied very much, while others wrote in "none" signifying that they did not have a dislike for any of the subjects studied.

With respect to instructional considerations which included individual differences of students, the data presented in Table 13 isolates several areas which indicated need for further investigation. In that 46 percent and 37 percent of the students enrolled in science and history, respectively, indicated the course as "least liked" these areas should be studied further. Other areas to be considered are reading, mathematics, and government which received unusually high preference and/or neutral ratings.

The students' evaluation of API's program of study and curriculum was interpreted to be highly favorable because of the extremely large number of positive responses to the items about subjects having been geared to the student's level of understanding and having met his individual needs and interests.

Question Four. How does the student evaluate the counseling services? In order to address this question, five items on the questionnaire were specifically related to the student's evaluation of the effectiveness of the counseling services provided for him at the site where he received class instruction. The sample for Survey A was

taken from the part of the API student body that attended classes at the First Cavalry Academy site. This site was staffed with one API counselor. The students also had access to the services of six Fort Hood Army Education Center counselors located at the same site.

Questionnaire item number thirteen asked the student if API had helped him in his plans for the future. Responses to this item are displayed in Table 15. Positive responses rated higher than 81 percent, while less than 17 percent of the students felt that their future plans had not been helped by API.

Table 15

Future Plans Helped by API

Responses	Number	Percent
Yes	288	81.82
No	57	16.19
Left blank	3	0.85
More than one response	2	0.57
[Unsure]	2	0.57
Total	352	100.00

Item number fourteen asked the student if he understood the reasons why he had studied the subjects he

was required to take. Table 16 shows the responses to this item. A large majority, 82 percent, responded "Yes," while 12.5 percent were "Unsure" about their reasons for studying required subjects.

Table 16

Understands Reasons for Studying Required Subjects

Responses	Number	Percent
Yes	289	82.10
Unsure	44	12.50
No	17	4.83
Left blank	2	0.57
Total	352	100.00

The student was asked in questionnaire item number fifteen if a counselor was available for him to talk with. Responses to this item are shown in Table 17. About 2 percent of the sample responded to "Never." Nearly 37 percent found a counselor available "Sometimes," while 59 percent found one available "Often."

Table 17

Availability of Counseling Services

Responses	Number	Percent
Never	7	1.99
Sometimes	129	36.65
Often	208	59.09
Left blank	7	1.99
[No need]	1	0.28
Total	352	100.00

Questionnaire item number sixteen asked the student when he was informed of the credits he needed to earn a diploma. The responses to the four possible alternatives are presented in Table 18. A student's school records were requested from his former school by the API counselor or an Army Education Center counselor at the time the student registered for API classes. Early notification of credits needed for graduation was dependent on early pre-registration. For Survey A, over 23 percent of the students were informed of credits needed "Before class started," over 17 percent during "First week of class," and 38 percent "Towards end of cycle." Over 17 percent were "Never" notified.

Table 18

Time Informed of Credits Needed

Responses	Number	Percent
Before class started	83	23.58
First week of class	59	16.76
Towards end of cycle	135	38.35
Never	62	17.61
Left blank	13	3.70
Total	352	100.00

In questionnaire item number seventeen, the student was asked how he felt about the understanding of API's credit-granting system. Responses given in Table 19 show that 7 percent felt it "Impossible" to understand, about 41 percent found it "Confusing," and nearly one half of the sample found it "Easy" to understand.

Table 19

Understanding of Credit-Granting System

Responses	Number	Percent
Impossible to understand	25	7.10
Confusing	144	40.91
Easy	171	48.58
Left blank	9	2.56
More than one response	2	0.57
Never explained	1	0.28
Total	352	100.00

The results of the five questionnaire items that related to the effectiveness of the counseling services at the First Cavalry Academy site can be summarized as having indicated that these services were adequate, while not maximally effective for the particular sampling period. As previously noted, the problem of obtaining transcripts from former schools was a major one.

The credit-granting system for API was easily understood by a large number of students. A very large majority understood the reasons for studying required subjects and felt that their school experiences helped them in their future plans.

Question Five. How does the relationship between the military community and API affect the student's position of being simultaneously a student and a soldier? In order to obtain an idea of the student's perspective of API's relationship with the military and of his own position of being both soldier and student, he was asked four questions about his feelings and experiences directly related to the military.

Questionnaire item number eighteen asked the student if he felt that his commanding officers understood the educational program offered at API. This item's responses are shown in Table 20. Over 45 percent of the First Cavalry Division commanders were perceived by the students as having an understanding, while 23 percent "Sometimes" had an understanding, and 31 percent were perceived as having "No" understanding.

Table 20

Commander's Understanding of API

Responses	Number	Percent
Yes	159	45.17
Sometimes	80	22.73
No	108	30.68
Left blank	5	1.42
Total	352	100.00

The student was asked in questionnaire item number nineteen if he felt that his commanding officer would approve his (the student's) attending API for another cycle if he (the student) so desired. Table 21 shows that over 35 percent of the sample felt that their commanders would approve their attending API for another cycle, while 45 percent were "Unsure." Almost 18 percent responded "No" to this item.

Table 21

C.O. Would Approve Another Cycle

Responses	Number	Percent
Yes	126	35.80
Unsure	159	45.17
No	63	17.90
Left blank	3	0.85
More than one response	1	0.28
Total	352	100.00

Item number twenty of the questionnaire asked the student if his military duties had interfered with his class attendance. Table 22 indicates that military duties were viewed as interfering with class attendance for about one fourth of the Survey A sample.

Table 22

Military Duties Interfere with School Attendance

Responses	Number	Percent
Yes	89	25.29
No	255	72.44
Left blank	8	2.27
Total	352	100.00

Questionnaire item number twenty nine also addressed the survey Question Five by asking the student if he had been assigned any extra duty assignments while attending school and, if so, what were they. This item had four fixed alternative responses and provision for free responses. The student selected one or multiple responses. These responses are given in Table 23. Extra duty assignments were not assigned to about three fourths of the students surveyed in this sampling. The responses to the extra duty assignments listed as alternatives on this item, along with the free responses, were variously distributed. Of the 25 percent of the sample that did have extra duty assignments while attending school, guard duty was rated highest. The "Other" (free response) extra duties assigned, in order of priority, were: extra work in the company

before and/or after school, details such as scrubbing halls, weekend duty, alerts, C.Q. runner, stand-by.

Table 23

Extra Duty Assignments While Attending School

Responses	Number (N) responses	Percent of responses (N/380)	Percent of students (N/352)
Guard	30	7.90	8.52
C.Q.	22	5.79	6.25
Field	9	2.37	2.55
None	261	68.68	74.15
Other	48	12.63	13.64
Left blank	10	2.63	2.84
Total	380	100.00	107.95

In summarizing the responses to the questionnaire items that were intended to give an idea of the students' perspective of the multiple relationships between API, the military, and the soldier-student it was interpreted that the API military student had some difficulty relating school to his commanding officer. This interpretation was supported by the large number of "Sometimes" and "Unsure" responses given to items eighteen and nineteen on the questionnaire. Some of the "Unsure" responses in

Table 21 were qualified with "He [commanding officer] will, if API thinks I'll graduate next time" or similar remarks.

Approximately 25 percent of the sample in Survey A, API military students from the First Cavalry Division, had difficulty coping with the dual role of student and soldier. The same percentage, but not necessarily the same students, had extra-duty assignments while enrolled in school. Similar soldier-student problems were expressed by about the same percentage of students in Survey A on the Suggestion Sheet, which was a latter section of the questionnaire.

Question Six. Is the environment both inside and outside the classroom conducive to learning? In order to ascertain the student's evaluation of his learning environment he was asked four questions about class time, teachers, classroom suitability, and outside study conditions.

Questionnaire item number twenty one asked the student at what time of day he would prefer classes to be held. The class time alternatives are listed in Table 24. All-day classes had the greatest number of responses, nearly 80 percent. Classes in the mornings only were preferred by 14 percent of the First Cavalry Academy sample, while only 3 percent chose "After duty hours." Although some of the students attended only morning classes or only

afternoon classes the mode attendance for the cycle was for the entire day.

Table 24

Preferred Class Times

Responses	Number	Percent
All day	281	79.83
Mornings only	51	14.48
Afternoons only	12	3.41
After duty hours	4	1.14
Left blank	4	1.14
Total	352	100.00

Item number twenty two asked the student if his teachers were friendly and willing to help him. Provisions were not made on this item for the student to rate individual teachers; so he had to select an alternative that was an average rating for all of his API teachers. Table 25 presents the summary for this item. Over 64 percent of the students found all of their API teachers friendly and helpful, while less than 1 percent (only 2 students) responded "Never." The remainder of the sample at the First Cavalry Academy site responded "Most" and "Some" with 20 percent and 14 percent, respectively.

Table 25

Friendliness and Helpfulness of Teachers

Responses	Number	Percent
Never	2	0.57
Some	49	13.92
Most	70	19.89
All	226	64.20
Left blank	4	1.14
More than one response	1	0.28
Total	352	100.00

The student was asked in questionnaire item number twenty three if the rooms where he attended classes were suitable for him to study in. Responses to this item in Table 26 show that 61 percent of the students were able to study in the classrooms provided at the First Cavalry Academy site. Almost 37 percent of the responses were "No."

Table 26

Classrooms Suitable for Study

Responses	Number	Percent
Yes	215	61.08
No	130	36.93
Left blank	5	1.42
More than one response	2	0.57
Total	352	100.00

Item number twenty four asked the student if he had a place to study outside the classroom. Table 27 presents the responses to this item. Over 81 percent of the First Cavalry Academy students indicated that they had a place outside the classroom to study, and 17 percent did not have a place outside the classroom to study.

Table 27

Place to Study Outside Classroom

Responses	Number	Percent
Yes	286	81.25
No	60	17.05
Left blank	3	0.85
More than one response	3	0.85
Total	352	100.00

Many of the positive remarks on the questionnaire Suggestion Sheet were about API teachers: "teachers good," "helped me a lot," "if I had had teachers like Mrs. _____ and Mrs. _____, I wouldn't have to be here now," "they really care."

It was interpreted from the students' comments about teachers and the summaries of Tables 24-27 that a majority of the students in Survey A perceived their study environment to be conducive to learning. There was a definite preference for the continuation of all-day classes.

Question Seven. What are the students' specific suggestions for improvement? A Suggestion Sheet was attached to the questionnaire in order to find out the students' specific suggestions for the improvement of the

educational program offered at a particular API site and to list courses he would like API to include in the curriculum. This sheet also afforded the student an opportunity to offer criticisms. Response by the student to the Suggestion Sheet was optional.

Questionnaire item number twenty five asked the student if he would like to see more courses offered by API. Table 28 shows that over 91 percent of the students at the First Cavalry Academy site wanted API to offer a larger selection of courses.

Table 28

Would Like Additional Courses Offered

Responses	Number	Percent
Yes	323	91.76
No	24	6.82
Left blank	5	1.42
Total	352	100.00

Of the 323 students that wanted a larger course selection at API, 123 replied with specific course suggestions on the Suggestion Sheet. Fifty one courses (listed in Table 30) were grouped by academic, vocational, and career areas. Table 29 summarizes the courses into fourteen areas with frequencies and percentages for each.

The areas with the highest percentages were transportation, business, and construction. Approximately 70 percent of the suggested courses were in vocational and career areas. The remaining 30 percent, in order of most frequently suggested, were in the academic areas of liberal arts, fine arts, advanced sciences, and math.

Table 29

Summary of Suggested Courses by Area

Courses	Number (N) responses	Percent of responses (N/286)	Percent of students replying (N/123)	Percent of students (N/352)
Advanced Sciences	23	8.04	18.70	6.53
Social Studies	20	6.99	16.26	5.66
Advanced Math	13	4.55	10.57	3.69
Foreign Language	7	2.45	5.69	1.99
Fine Arts	26	9.09	21.14	7.39
Transportation	46	16.08	37.40	13.07
Business-Related	42	14.68	34.15	11.93
Data Processing	5	1.75	4.07	1.42
Construction-Related	37	12.94	30.08	10.51
Electronics	9	3.15	7.32	2.55
Drafting	12	4.19	9.76	3.41
General-Vocational	31	10.84	25.20	8.81
Law-Related	9	3.15	7.32	2.56
Agriculture-Related	6	2.10	4.88	3.41
Total	286	100.00	232.54	81.25

The Suggestion Sheet asked the student to list courses that he would like API to offer. Response by the student was optional. The courses as suggested by the

students are listed by areas in Table 30. Frequencies are given by course and area. There were fifty-one courses suggested by 123 students, one third of the API student body enrolled at the First Cavalry Academy site during the survey period. The courses that were most often suggested were auto mechanics, vocational, arts and crafts, typing, woodshop, bookkeeping, and body shop.

Table 30

Suggested Courses by Cycle 1H15 Students

Area/Course	Frequency	Area/Course	Frequency
Advanced Sciences	(23)	Business-Related	(42)
Chemistry	7	Typing	17
Physics	4	Shorthand	2
Biology	9	Bookkeeping & Accounting	14
Sex Education	3	Office Management	2
Social Studies	(20)	General Business	6
Psychology	4	Journalism	1
Black History	7		
World History	7	Construction-Related	(37)
Sociology	2	Carpenter	1
		Welding	8
Advanced Math	(13)	Air-Conditioning	1
Algebra	6	Electricity	2
Trigonometry	3	Woodshop	15
Calculus	2	Metal Shop	9
Geometry	2	Brick Masonry	1
Foreign Languages	(7)	General-Vocational	(31)
Spanish	5	Vocational	21
French	2	OJT (On Job Training)	2
Fine Arts	(26)	MOS	1
Drama & Speech	4	Ind. Arts	2
Music	4	Lab Technician	1
Arts & Crafts	18	Cooking	1
		Aviation	1
Transportation	(46)	Photography	2
Auto Mechanics	30		
Body Shop	12	Law-Related	(9)
Machinist	2	Law Enforcement	4
Trucking	1	Law	5
Heavy Equipment	1		
		Agriculture-Related	(5)
Data Processing	(5)	Agriculture	3
		Forestry	1
Electronics	(9)	Conservation	1
Drafting	(12)		

The Suggestion Sheet also asked the student, if he so desired, to list any suggestions for the improvement of API. The student was given oral group instructions to write criticisms on any area that related to his school experience at API, if he so desired. Suggestions and criticisms were made by 173 students. The number of suggestions per student ranged from one to less than five. The suggestions most often listed by the First Cavalry Division students generally were in one of three categories: military problems, classroom conditions, and curriculum.

Student suggestions that were related to the category of military problems are summarized in Table 31. Over 65 percent of the suggestions made were in this category. The responses were grouped under three areas or types of suggestions. About 29 percent of the responses in the military problems area suggested the desire for less military control during school hours: specifically, the elimination of the ranking non-commissioned officer (NCO) student in each classroom acting as disciplinarian, mandatory wearing of military duty-uniforms, mandatory formations (roll check by the military) at the student's company area and/or in front of the Academy facilities, and mandatory transportation by military vehicles to the Central Texas College campus site for science classes. Nearly 21 percent of the responses indicated the students' feeling that their military superiors were unfairly demanding of the soldier

that was attending school and suggested that a more supportive attitude would be beneficial. Over 16 percent of the responses were suggestions that the soldier-student be assigned fewer duties and none, if he attended all-day classes.

Table 31

Military Problems

Suggestions	Number (N) responses	Percent of responses (N/114)	Percent of students replying (N/173)
Fewer duty assignments	28	24.56	16.18
Less military control during school hours	50	43.86	28.90
Less harassment from superiors in military	36	31.58	20.81
Total	114	100.00	65.89

The summarization of student suggestions that related to the category of classroom conditions is given in Table 32. Nearly 58 percent of the suggestions made were in this category and are grouped into three areas in the table. Sixty-three students felt that their classroom performance would be better if the physical facilities were improved. More study materials were desired by 21 students, while 16 students desired stricter classroom discipline.

Table 32

Classroom Conditions

Suggestions	Number (N) responses	Percent of suggestions (N/100)	Percent of students replying (N/173)
More study materials	21	21	12.41
Better physical facilities	63	63	36.42
Stricter discipline	16	16	9.25
Total	100	100	57.81

Table 33 summarizes the students' suggestions for curriculum improvement at API and other areas that would improve student performance. The slightly more than 60 percent of the responses on the Suggestion Sheet that related to the curriculum category were grouped into four areas. Of the 352 students, only 42 students suggested a change in the type of instruction, 36 students suggested longer cycles, 19 students suggested more help from the teachers, and 7 suggested that transcripts be obtained sooner.

Table 33

Curriculum

Suggestions	Number (N) responses	Percent of suggestions (N/104)	Percent of students replying (N/173)
Change type of instruction	42	40.38	24.28
Longer cycle	36	34.62	20.81
More help from teachers	19	18.27	10.98
Obtain transcripts sooner	7	6.73	4.05
Total	104	100.00	60.12

The greatest number of comments and suggestions made by the students in Survey A for the improvement of API were related to the desirability for additional courses, mostly vocational and technical. The most often suggested courses were in the areas of transportation, business, and construction. Each of these were suggested by one out of every three students that responded on the Suggestion Sheet. This ratio converts to about one out of every nine students, approximately 12 percent, for the total sample surveyed at the First Cavalry Academy site.

On the Suggestion Sheet, students expressed their preference to study subjects that related to work or jobs

they would perform when they terminated their military service. This preference as well as the 40 percent that felt only "Some" subjects were made meaningful to their lives indicated that a sizeable number of First Cavalry Division students found API's courses traditionally academic; therefore, difficult to relate to everyday life. Career courses were not available to students at this API site.

The most frequent complaint of the student in Survey A was the problem of trying to cope with the simultaneous demands of school and the military. Most complaints indicated that commanding officers and first sargeants did not understand the unique problems encountered when returning to school as an adult with many responsibilities and that duty hours were often too long for students to have adequate study time or, if duties were assigned at night, to be alert during classes on the following day.

Many students felt that the classrooms were not as comfortable as they should be: they were too crowded, they lacked space for special projects, they were too close to other classrooms, they lacked temperature control. Other students felt that API needed more materials and equipment, including textbooks or workbooks that could be kept overnight.

Some students expressed strong feelings about their peers that misbehaved and felt that strict disciplinary

action should be enforced. It was suggested by these same students that fewer students per class or more teachers per class would eliminate most discipline problems. There was a consensus that all school and student problems ought to be handled by the API staff and faculty.

The students felt the need for more time in class--longer days and/or longer cycles. Many expressed the feeling of being constantly rushed with little time for minimum course work and no time for enrichment. It was suggested that a study hall with some teachers present would be beneficial.

In summarizing the criticisms and suggestions of the 173 students that responded to the Suggestion Sheet, approximately 40 percent were interpreted to be positive and 60 percent were interpreted to be negative. The number of positive responses were interpreted as problems directly related to the military, while 20 percent were complaints in areas related to API. It was noted by the researcher that a high degree of concern and emotion was shown by the First Cavalry Academy students while responding to the Suggestion Sheet.

General Information. The student was asked to answer three items on the questionnaire that were unrelated to student evaluation. Each item required one or more responses from the student.

Item number twenty six asked the student how he had learned about API. Table 34 summarizes the reponses. Nearly one half of the students had learned about API from a Fort Hood Army Education Center counselor, over 22 percent from their commanding officer, over 9 percent from a friend, 6 percent from a recruiting officer, and less than 1 percent from posters or flyers.

Table 34

Learned About API

Responses	Number (N) responses	Percent of responses (N/375)	Percent of students (N/352)
Ed. Center Counselor	185	49.33	52.56
C.O.	85	22.67	24.15
Friend	36	9.60	10.23
Poster or flyers	3	0.80	0.85
Recruiting Officer	23	6.14	6.53
Other	35	9.33	9.94
Left blank	8	2.13	2.27
Total	375	100.00	106.53

Questionnaire item number twenty seven asked the student what was his main reason for attending API. The multiple responses are presented in Table 35. Over 81 percent of the First Cavalry Division students attended API

in order to earn a high school diploma, about 10 percent in order to pass the GED tests, and about 14 percent in order to raise their GT scores. Over 14 percent attended for their own personal satisfaction.

Table 35

Main Reason for Attending API

Responses	Number (N) responses	Percent of responses (N/450)	Percent of students (N/352)
High School diploma	286	63.56	81.25
GED	35	7.78	9.94
Raise GT score	51	11.33	14.49
Relieved from Army duties	7	1.55	1.99
Personal satisfaction	51	11.33	14.49
Other	17	3.78	4.83
Left blank	3	0.67	0.85
Total	450	100.00	127.84

Questionnaire item number twenty eight asked the student what were his future plans. The multiple responses are shown in Table 36. Over 48 percent responded that they planned to continue their education, 25 percent were "Undecided," 16 percent planned to remain in the military service, and nearly 18 percent planned to work in a technical field.

Table 36

Future Plans

Responses	Number (N) responses	Percent of responses (N/415)	Percent of students (N/352)
Continue education	172	41.45	48.86
Continue in service	56	13.49	15.91
Work in a technical field	62	14.94	17.61
Undecided	89	21.45	25.28
Other	26	6.26	7.39
Left blank	10	2.41	2.84
Total	450	100.00	117.89

The Fort Hood Army Education Center and military company commanding officers were found to be the primary disseminators of information about the API program. This finding was interpreted as indicating the high degree of cooperation provided API by the military. Few students learned about API from their friends or from posters or flyers. This finding was as expected since API had been operating at this site for only about seven months and few, if any, posters or flyers were available.

The educational goal for most of the students was to earn a high school diploma. In that nearly one half of

the students indicated a desire to continue their education, this goal might be considered a prerequisite step to other educational goals.

Results of Survey B

Survey B identifies the attitudinal study conducted during the spring of 1975 at API's Central Texas College campus site. It was administered to a random sample of 60 high school students assigned to the various units, except the First Cavalry Division, at Fort Hood, Texas. Most of the students in the sample were assigned to the Second Armored Division and all were enrolled at API during Cycle 2H25. The study used the twenty-nine item questionnaire that addressed the seven specific questions and general information pertinent to the interpretation of the survey that was used in Survey A.

Question One. What is the student's attitude toward the program as a whole? To obtain an impression of the student's evaluation of API, he was asked three questions intended to elicit a comparison of API to secondary schools previously attended.

Item number one of the questionnaire asked the student if there was a difference between API classes and classes he had previously attended while in the military. Responses to this item are shown in Table 37. Over 50 percent of the sample had not attended other schools while

in the military and therefore could not make the required comparison. Of the remaining part of the sample that could respond, a majority indicated that API was different. Some of the negative responses could have been from students that had attended API during a previous cycle and classes were about the same for them. The frequency of returning students could not be ascertained since the questionnaire did not ask for information that would distinguish between students attending API for the first time and those that had previously attended.

Table 37

Difference Between API and Other Schools Attended While in Military

Responses	Number	Percent
Yes	16	26.67
No	13	21.66
Have not attended other schools while in military	31	51.67
Total	60	100.00

Questionnaire item number two asked the student if there was a difference between API and other schools he had attended as a civilian. Table 38 shows that 88 percent of the sample found a difference.

Table 38

Difference Between API
And Civilian Schools

Responses	Number	Percent
Yes	53	88.33
No	7	11.67
Total	60	100.00

Item number three on the questionnaire required the student to indicate his desires about returning to API for instruction. A total of 51 students indicated that they would return to API for additional instruction. Only 8 students indicated that they would not return.

Table 39

Would Return for Additional API Classes

Responses	Number	Percent
Yes	51	85.00
No	8	13.33
Left blank	1	1.67
Total	60	100.00

The results of the three questionnaire items addressed in survey Question One were summarized as: the students perceived a difference in instruction offered by API and that of other military and civilian schools, and they desired to continue with API. This pattern of responses related to the evaluation of the total API program was interpreted as a definite preference of the sample for the competency-based, continuous-progress instructional system used by API.

Question Two. How does the student evaluate the effectiveness of instruction? To determine the student's evaluation of classroom instruction, he was asked four questions related to his own progress as a result of having attended API classes.

Questionnaire item number four asked the student if he thought class time was used effectively. Responses to this item are presented in Table 40. Less than 14 percent thought that class time was effectively used some of the time while 87 percent thought that it was effectively used most or all of the time.

Table 40

Class Time Used Effectively

Responses	Number	Percent
Never	0	0.00
Some	8	13.33
Most	32	53.34
All	20	33.33
Total	60	100.00

Item number five asked the student if his skills and abilities in the subject areas he had studied had been improved. Table 41 summarizes the responses for this item. Over 48 percent responded that their skills and abilities had improved "Much," over 43 percent believed that they had improved "Some," and less than 9 percent indicated that they had improved very little or none at all.

Table 41

Improvement of Skills and Abilities

Responses	Number	Percent
No	3	5.00
Very little	2	3.33
Some	26	43.34
Much	29	48.33
Total	60	100.00

Questionnaire item number six asked the student if the subjects (courses) he had studied had been made meaningful to his life. Responses to this question are displayed in Table 42. Most or all of the courses studied at API were found meaningful to more than 60 percent of the sample for Survey B. Over 33 percent found only some of the courses meaningful, while 5 percent found the courses studied having never been made meaningful in their lives.

Table 42

Meaningfulness of Subjects to Student's Life

Responses	Number	Percent
Never	3	5.00
Some	20	33.33
Most	21	35.00
All	15	25.55
Left blank	1	1.67
Total	60	100.00

Item number seven requested the student to indicate the degree to which he had received individual help in his classes. Table 43 presents a summary of the responses to this questionnaire item. Over 46 percent of the sample indicated that individual help in classes had been received all or most of the time. Forty-five percent responded to "Some" and 8 percent to "Never."

Table 43

Individual Help Received in Classes

Responses	Number	Percent
Never	5	8.33
Some	27	45.00
Most	11	18.34
All	17	28.33
Total	60	100.00

The student responses for the four items pertaining to the effectiveness of instruction indicated a consistency between perceived improvement of skills and abilities, effective use of class time, and meaningfulness of courses with the majority responding to the more positive categories for the items. Most students in the Survey B sample had frequently received individual help in the classroom.

In general, the questionnaire responses (Table 40, 41, 42, and 43) indicated that the students perceived their instruction as effective.

Question Three. How does the student evaluate the program of study and curriculum at API? The student was asked to check at the top of the questionnaire all courses that he had ever been enrolled in at API in order to assist

in interpretation of the responses addressed to this question. Then, in order to obtain an impression of the student's evaluation of API's program of study and curriculum, five questions were asked concerning his personal preferences and feelings about the subjects he had studied and the classes he had attended at API.

The frequencies of courses ever having been enrolled in at API by the Survey B sample are shown in Table 44. The average course load per student was slightly more than two and one-half subjects. Over one half of all the students in this sample had been enrolled in English and math classes at API. Other courses enrolled in, from largest enrollment to smallest, were government, science, history, geography, reading, graphics, bookkeeping, programming, drafting, and business concepts. Some of the students in this sample had been enrolled at API during earlier cycles; thus accounting in part for the high number (N = 153) of responses recorded in Table 44.

Table 44

Course Enrollments for Cycle 2H25

Courses	Number (N) responses	Percent of students (N/60)
Science	14	23.33
English	35	58.33
Reading	8	13.33
Math	30	50.00
Government	15	25.00
History	13	21.67
Geography	11	18.33
Bookkeeping	5	8.33
Programming	4	6.67
Drafting	4	6.67
Graphics	7	11.67
Business Concepts	4	6.67
Left blank	3	5.00
Total	153	225.00

Questionnaire item number eight asked the student if the subjects he had studied were on his level of understanding. Table 45 shows the responses to this item. Most or all of the subjects were geared to the students' level of understanding for 78 percent of the sample. About 18

percent indicated that only some of the subjects were geared to their level of understanding, while less than 4 percent responded that the subjects were never geared to their level of understanding.

Table 45

Subjects Geared to Student's Level

Responses	Number	Percent
Never	2	3.34
Some	11	18.33
Most	15	25.00
All	32	53.33
Total	60	100.00

Item number nine of the questionnaire asked the student if his needs and interests had been met by the subjects he had studied. Responses to this item are given in Table 46. Forty percent of the responses indicated that all of the subjects that had been studied by the students in Survey B met the needs and interests for 25 percent while some of the subjects met the needs and interests for 30 percent. Only 5 percent felt that their needs and interests were never met by the subjects they had studied.

Table 46

Subjects Meeting Individual Needs and Interests

Responses	Number	Percent
Never	3	5.00
Some	18	30.00
Most	15	25.00
All	24	40.00
Total	60	100.00

The student was asked in questionnaire item number ten to indicate which one of the subjects that he had studied at API he had liked the most of all. The subjects offered by API at the Central Texas College site during the time of this survey are listed in Table 47 as well as the responses to item ten. English was the most frequently selected subject. The next most liked subject was reading which was selected by over 13 percent. The remaining "most liked" subjects, in order of preference, were science, government, math, drafting, geography, graphics, book-keeping, history, programming, and general business. Five percent of the students marked two or more alternatives.

Table 47

Most Liked Subject

Responses	Number	Percent
Science	7	11.67
English	12	20.00
Reading	8	13.33
Math	5	8.33
Government	7	11.67
History	2	3.33
Geography	3	5.00
Bookkeeping	3	5.00
Programming	2	3.33
Drafting	4	6.67
Graphics	3	5.00
Business Concepts	1	1.67
More than one response	3	5.00
Total	60	100.00

Questionnaire item number eleven requested that the student select the one subject that he had studied at API that he liked least of all. Table 48 presents these selections, with math receiving the greatest frequency of over 28 percent. The next "least liked" subject selected by this sample was English, followed by geography, history,

government, science, general business, and programming. Reading, bookkeeping, graphics, and drafting were not selected as the least liked subject by any of the students in the sample for Survey B.

Table 48

Least Liked Subject

Responses	Number	Percent
Science	2	3.33
English	12	20.00
Reading	0	0.00
Math	17	28.33
Government	4	6.67
History	8	13.33
Geography	9	15.00
Bookkeeping	0	0.00
Programming	1	1.67
Drafting	0	0.00
Graphics	0	0.00
Business Concepts	1	1.67
Left blank	2	3.33
[None]	4	6.67
Total	60	100.00

The frequencies reported in Tables 47 and 48 reflect the varying enrollment among subject matter areas. To adjust for this enrollment trend, the frequencies were converted to percentages with the frequencies reported in Table 44 as the denominator, thus providing an index of the number of students enrolled in a subject that found that subject "most liked" or "least liked." Using these percentages, and following the same rank-ordering procedures for Summary A described on pages 46-47, the following results were obtained with respect to the academic areas. By mode-ranking, reading received the most positive response with science and government being ranked second and third, respectively. English received a mean rank of four. Math, geography, and history were less positive and received ranks five, six, and seven respectively. The percentages are presented in Table 49.

Table 49

Course Ratings by Percentage of Enrollment in Cycle 2H25

Course	Rating		
	Least liked percentage	Neutral percentage	Most liked percentage
Science	3	85	12
English	20	60	20
Reading	0	87	13
Math	28	64	8
Government	7	81	12
History	13	84	3
Geography	15	80	5
Bookkeeping	0	95	5
Programming	2	95	3
Drafting	0	93	7
Graphics	0	95	5
Business Concepts	2	96	2

The multifactor nature of the course-ranking data is displayed graphically as Figure 4. The development of the histogram for Survey B was carried out in the same manner as described for Figure 3, page 49. As indicated in Figure 4, reading lies in the most positive position while math lies in the most negative position. Comparison of the relative size of the neutral areas indicates that

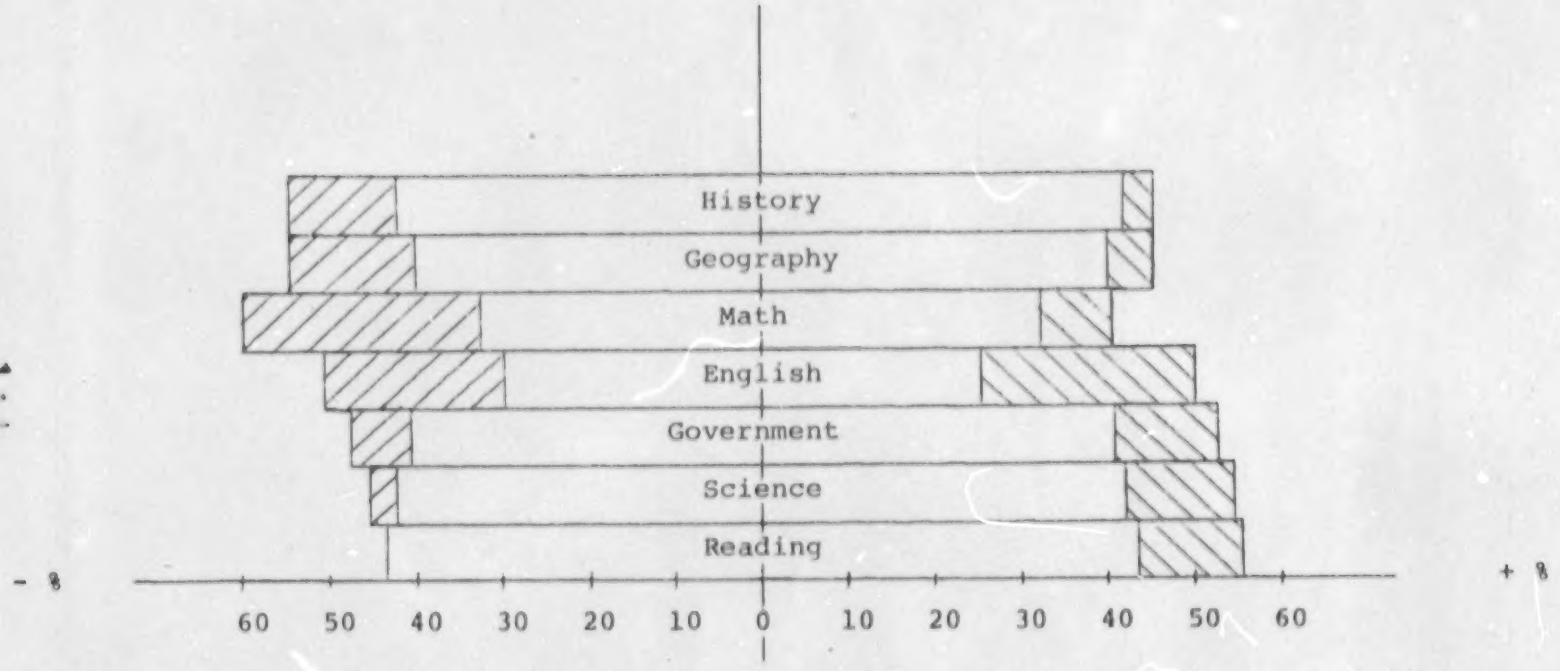


Figure 4

Percentage of Positive, Negative, and Neutral Reactions by Course for Survey B

reading, science, and history were the most non-reactive courses while English and math produced the maximum reactions.

The mode-ranking of the career courses from the responses of the API students in Survey B resulted in bookkeeping receiving the most positive response. Drafting, graphics, and programming were ordered positively and ranked second, third, and fourth, respectively. Business concepts received a neutral response and ranked lastly among the career course offerings. It was noted that three of the career courses and reading were not selected as "least liked" by a single student.

The student was asked to select his most liked class that he had attended at API in questionnaire item number twelve. The intent of this item was to provide the student an opportunity to make a distinction between class and subject matter. Selections for this item are shown in Table 50. Over 18 percent of the sample liked English class most of all, while 15 percent chose their government class. The remaining most liked classes in order of preference were science, math, drafting, graphics, reading, history, geography, bookkeeping, programming, and business concepts. The highest and lowest percentage of the one most liked class paralleled the highest and lowest percentages for the one most liked subject that the students had studied at API. The percentages ranging between the upper

and lower limits were not paralleled for the most liked class attended and the most liked subject studied, hence indicating that the students in Survey B perceived some distinction between subject and class.

Table 50

Most Liked Class

Responses	Number	Percent
Science	7	11.67
English	11	18.33
Reading	4	6.67
Math	7	11.67
Government	9	15.00
History	3	5.00
Geography	2	3.33
Bookkeeping	2	3.33
Programming	2	3.33
Drafting	6	10.00
Graphics	5	8.33
Business Concepts	1	1.67
[None]	1	1.67
Total	60	100.00

In order to properly interpret the responses shown in Tables 44-50 and their relationship to survey Question Three, it must be noted that the survey questionnaire did not provide for information that would distinguish between students attending API for the first time and those students that had attended during a previous cycle. Some of the students in Survey B had attended API in previous cycles when only math, English, and reading were the course offerings.

The responses in Table 68 on page 122 show that 20 percent of this sample was probably enrolled in special GED classes instead of the diploma-bound classes. These special classes offered only the subjects of math, English, and reading; consequently, students that fit this category contributed to the high number of responses for math and English for those questionnaire items that related to subjects studied and classes attended. Another contributing factor pertaining to the distribution of responses for these items was that students were encouraged to earn the quarter credits that they needed for graduation in math and English first, before enrolling in other courses.

In the competency-based, continuous-progress instructional system practiced at API, the diploma-bound student was transferred to another class as soon as he had earned the quarter credits required for a particular subject. This type system enabled a student to attend more classes throughout the length of a cycle than the number of class periods he was enrolled in per day.

Some of the students had difficulty responding to questionnaire items ten, eleven, and twelve as indicated by the number of blanks and multiple responses on the corresponding Tables 47, 48, and 50. Some students wrote "None" signifying that they did not have a dislike for any of the subjects studied.

With respect to instructional considerations which included individual differences of students, the data presented in Table 49 isolates several areas which indicate need for further investigation, particularly when compared with Survey A results. In Survey B, more courses in particular career areas were offered and student response was more positive than in Survey A. This result was further highlighted with respect to student reaction to relevance of the courses. Although mathematics and English were the "least liked" subjects for Survey B students--28 percent and 20 percent, respectively--this was not a marked difference in Survey A student reactions--25 percent and 32 percent.

The students' evaluation of API's program of study and curriculum at the Central Texas College campus site was interpreted to be highly favorable because of the number of responses to the items about subjects having been geared to the student's level of understanding and having met his individual needs and interests.

Question Four. How does the student evaluate the counseling services? In order to address this question, five items on the questionnaire were specifically related to the student's evaluation of the effectiveness of the counseling services provided for him at the site where he received class instruction. The sample for Survey B was taken from that part of the API student body that attended all classes at the Central Texas College campus site. This site was staffed with only one API counselor.

Questionnaire item number thirteen asked the student if API had helped him in his plans for the future. Responses to this item are displayed in Table 51. Positive responses rated higher than 81 percent, while 15 percent of the students in the sample felt that their future plans had not been helped by API.

Table 51

Future Plans Helped by API

Responses	Number	Percent
Yes	49	81.67
No	9	15.00
Left blank	2	3.33
Total	60	100.00

Item number fourteen asked the student if he understood the reasons why he had studied the subjects he was required to take. Table 52 shows the responses to this item. A large majority of the sample, over 88 percent, responded "Yes," while less than 9 percent were "Unsure" about their reasons for studying required subjects.

Table 52

Understands Reasons For Studying Required Subjects

Responses	Number	Percent
Yes	53	88.33
Unsure	5	8.33
No	2	3.34
Total	60	100.00

The student was asked in questionnaire item number fifteen if a counselor was available for him to talk with. Responses to this item are shown in Table 53. About 12 percent of the sample responded with "Never." Nearly 32 percent found a couselor available "Sometimes," while 57 percent found one available "Often."

Table 53

Availability of Counseling Services

Responses	Number	Percent
Never	7	11.66
Sometimes	19	31.67
Often	34	56.67
Total	60	100.00

Questionnaire item number sixteen asked the student when was he informed of the credits he needed to earn a diploma. The responses to the four possible alternatives are presented in Table 54. A student's school records were requested from his former school by the API counselor or by a Fort Hood Army Education Center counselor at the time the student registered for API classes. Early notification of credits needed for graduation was dependent on early pre-registration. For Survey B, over 3 percent of the students were informed of credits needed "Before class started," over 58 percent during "FIrst week of class," and 28 percent "Towards end of cycle." Over 8 percent "Never" were notified.

Table 54

Time Informed of Credits Needed

Responses	Number	Percent
Before class started	2	3.34
First week of class	35	58.33
Towards end of cycle	17	28.33
Never	5	8.33
Left blank	1	1.67
Total	60	100.00

In questionnaire item number seventeen, the student was asked how he felt about the understanding of API's credit-granting system. Responses given in Table 55 show that about 7 percent of the Survey B sample felt that it was impossible to understand, about 33 percent found it "Confusing," and over one half of the sample found API's credit-granting system easy to understand.

Table 55

Understanding of Credit-Granting System

Responses	Number	Percent
Impossible to understand	4	6.67
Confusing	20	33.33
Easy	36	60.00
Total	60	100.00

The results of the five questionnaire items relating to the effectiveness of the counseling services at the Central Texas College campus site can be summarized as having indicated that these services were adequate, while not maximally effective for the particular sampling period. As previously noted, the problem of obtaining transcripts from former schools was a major one.

The credit-granting system for API was easily understood by a majority of Survey B students. A very large majority understood the reasons for studying required subjects and felt that their school experiences helped them in their future plans.

Question Five. How does the relationship between the military community and API affect the student's position of being simultaneously a student and a soldier? In order

to obtain an idea of the student's perspective of API's relationship with the military and of his own position of being both soldier and student, he was asked four questions about his feelings and experiences directly related to the military.

Questionnaire item number eighteen asked the student if he felt that his commanding officer understood the educational program offered at API. This item's responses are shown in Table 56. Over 41 percent of the military commanders were perceived by Survey B students as having an understanding, while 33 percent "Sometimes" had an understanding and 25 percent were perceived as having "No" understanding.

Table 56

Commander's Understanding of API

Responses	Number	Percent
Yes	25	41.67
Sometimes	20	33.33
No	15	25.00
Total	60	100.00

The student was asked in questionnaire item number nineteen if he felt that his commanding officer would approve his (the student's) attending API for another cycle

if he (the student) so desired. Table 57 shows that 40 percent of the sample felt that their commanders would approve their attending API for another cycle, while 43 percent were "Unsure." Over 16 percent of the students did not think that their commanders would approve their attending school for another twelve-week cycle.

Table 57

C.O. Would Approve Another Cycle

Responses	Number	Percent
Yes	24	40.00
Unsure	26	43.33
No	10	16.67
Total	60	100.00

Item number twenty of the questionnaire asked the student if his military duties had interfered with his class attendance. Table 58 indicates that military duties were viewed as interfering with class attendance for one half of the students enrolled in Cycle 2H25 at the Central Texas College campus site.

Table 58

Military Duties Interfere With School Attendance

Responses	Number	Percent
Yes	30	50.00
No	30	50.00
Total	60	100.00

Questionnaire item number twenty nine also addressed the survey Question Five by asking the student if he had been assigned any extra duty assignments while attending school and, if so, what were they. This item had four fixed alternative responses and provision for free responses. The student selected one or multiple responses. These responses are given in Table 59. Extra duty assignments were not assigned to about one fifth of the students surveyed in this sampling. The responses to the extra duty assignments listed as alternatives on this item, along with the free responses, were variously distributed. Of the 80 percent of the sample that did have extra duty assignments while attending school, guard duty was rated highest by over 56 percent of the sample. Field and C.Q. duties were each assigned to about 40 percent of the students from the Fort Hood military units assigned to Cycle 2H25.

Table 59

Extra Duty Assignments While Attending School

Responses	Number (N) responses	Percent of responses (N/99)	Percent of students (N/60)
Guard	34	34.35	56.67
C.Q.	25	25.25	41.67
Field	24	24.24	40.00
None	12	12.12	20.00
Other	4	4.04	6.66
Total	99	100.00	165.00

Im summarizing the responses to the questionnaire items that were intended to give an idea of the students' perspective of the multiple relationships between API, the military, and the soldier as a student; it was interpreted that the API military student had some difficulty relating school to his commanding officer. The interpretation was supported by the large number of "Sometimes" and "Unsure" on Tables 56 and 57.

One half of the students in Survey B had difficulty coping with the dual role of student and soldier in that their military duties interfered with their school attendance. Only 20 percent of the students had no extra duties while attending school. The extra duties assigned to the

military student, often at night and on the weekends, affected his alertness during class and allowed him no time for review or study outside the classroom.

Question Six. Is the environment both inside and outside the classroom conducive to learning? In order to ascertain the student's evaluation of his learning environment he was asked four questions about class time, teachers, classroom suitability, and outside study conditions.

Questionnaire item number twenty one asked the student at what time of day he would prefer classes to be held. The class time alternatives are listed in Table 60. Over 40 percent of the students in Survey B preferred to attend classes during the afternoons only. Over 23 percent preferred classes to be held all day, 30 percent preferred classes to be held only during morning hours, and less than 4 percent of the sample preferred classes to be held after duty hours. All of the API students at the Central Texas College campus site attended classes only in the afternoons.

Table 60

Preferred Class Times

Responses	Number	Percent
All day	14	23.33
Mornings only	18	30.00
Afternoons only	26	43.33
After duty hours	2	3.34
Total	60	100.00

Item number twenty two asked the student if his teachers were friendly and willing to help him. Provisions were not made on this item for the student to rate individual teachers; so he had to select an alternative that was an average rating of all of his API teachers. Table 61 presents the summary for this item. Sixty-five percent of the students found all of their API teachers friendly and helpful, while none of the students responded "Never." The remainder of the sample at the Central Texas College campus site responded "Most" and "Some" with 12 percent and 23 percent, respectively.

Table 61

Friendliness and Helpfulness of Teachers

Responses	Number	Percent
Never	0	0.00
Some	14	23.33
Most	7	11.67
All	39	65.00
Total	60	100.00

The student was asked in questionnaire item number twenty three if the rooms where he attended classes were suitable for him to study in. Responses to this item in Table 62 show that 82 percent of the students were able to study in the classrooms provided at the Central Texas College campus site. Over 18 percent of the responses were "No."

Table 62

Classrooms Suitable for Study

Responses	Number	Percent
Yes	49	81.67
No	11	18.33
Total	60	100.00

Item number twenty four asked the student if he had a place to study outside the classroom. Table 63 presents the responses to this item. Over 68 percent of the Survey B students indicated that they had a place outside the classroom to study and 32 percent did not have a place outside the classroom to study.

Table 63

Place to Study Outside Classroom

Responses	Number	Percent
Yes	41	68.33
No	19	31.67
Total	60	100.00

It was interpreted from the summaries of Tables 60-63 that a majority of the Survey B sample perceived the study environment at API to be conducive to learning. There was a preference for the continuation of afternoons-only classes; however, the combined percentages of the preferences for all-day and mornings-only classes were greater.

Question Seven. What are the students' specific suggestions for improvement? A Suggestion Sheet was attached to the questionnaire in order to find out the students' suggestions for the improvement of the educational program offered at a particular API site and to list courses he would like API to include in the curriculum. This sheet also afforded the student an opportunity to offer criticisms. Responses by the student to the Suggestion Sheet were optional.

Questionnaire item number twenty five asked the student if he would like to see more courses offered by API. Table 64 shows that over 88 percent of the students at the Central Texas College campus site wanted API to offer a larger selection of courses.

Table 64

Would Like Additional Courses Offered

Responses	Number	Percent
Yes	53	88.33
No	7	11.67
Total	60	100.00

Of the 53 students that wanted a larger course selection at API, only 14 replied with specific course suggestions on the Suggestion Sheet. Twenty-one courses (listed in Table 66) were grouped by academic, vocational, and career areas. Table 65 lists ten areas with frequencies and percentages for each. The areas listed most often were transportation, general-vocational-technical, and electronics. Approximately 86 percent of the suggested courses were in vocational and career areas. The remaining 14 percent were foreign languages, arts and crafts, and physical education.

Table 65

Summary of Suggested Courses by Area

Courses	Number (N) responses	Percent of responses	Percent of students replying (N/14)	Percent of students
Foreign Language	1	4.76	7.14	1.67
Fine Arts	1	4.76	7.14	1.67
Transportation	5	23.82	35.72	8.33
Business-Related	2	9.52	14.29	3.33
Construction-Related	2	9.52	14.29	3.33
Electronics	3	14.29	21.43	5.00
General-Vocational-Technical	4	19.05	28.57	6.66
Agriculture-Related	1	4.76	7.14	1.67
Physical Education	1	4.76	7.14	1.67
Leadership	1	4.76	7.14	1.67
Total	21	100.00	150.00	35.00

The courses as suggested by the students are listed by areas in Table 66. Frequencies are given by course and area. There were twenty-one courses suggested by 14

students or one third of the Survey B sample. The specific courses that were most often suggested were auto mechanics and electronics.

Table 66

Suggested Courses by Cycle 2H25 Students

Courses	Frequency
Foreign Languages	1
Fine Arts	
Arts & Crafts	1
Transportation	(5)
Auto Mechanics	3
Motorcycle Mechanics	2
Business-Related	
Typing	2
Construction-Related	(2)
Carpentry	1
Shop	1
Electronics	3
General-Vocation-Technical	(4)
Technical	2
Small Appliance Repair	1
TV-Radio Repair	1
Agriculture	1
Physical Education	1
Leadership	1

The Suggestion Sheet also asked the student, if he so desired, to list any suggestions for the improvement of API. The student was given oral group instructions to

write criticisms on any area that related to his school experiences at API, if he so desired. Suggestions and criticisms were made by less than 12 percent of the students in Survey B. Since the response to the Suggestion Sheet was minimal for the students attending API on the Central Texas College campus, the data was not developed. A majority of the responses were positive comments about API and the teachers. Some of the unsolicited student responses that were written on the Suggestion Sheet were: "API great!" Best I know," "Learned more in 5 weeks than 4 years in high school," "Should have schools and colleges on every post in U.S. Army," "Outstanding." The small number of criticisms that were made concerned the students' difficulty coping with the muptiple responsibilities of being both a soldier and a student. It was noted by the researcher that the students in Survey B were relaxed and appeared to feel free to respond openly.

General Information. The student was asked to answer three items on the questionnaire that were unrelated to student evaluation. Each item required one or more responses from the student.

Item number twenty six asked the student how he had learned about API. Table 67 summarizes the responses. Over 76 percent of the sample had learned about API from a Fort Hood Army Education Center counselor, over 16 percent

from a friend, and the remaining 15 percent from commanding officers, recruiting officers, and posters or flyers.

Table 67

Learned About API

Responses	Number (N) responses	Percent of responses (N/65)	Percent of students (N/60)
Ed. Center Counselor	46	70.77	76.67
C.O.	4	6.15	6.66
Friend	10	15.39	16.67
Poster or flyers	1	1.54	1.67
Recruiting Officer	4	6.15	6.66
Total	65	100.00	108.33

Questionnaire item number twenty seven asked the student what was his main reason for attending API. The multiple responses are presented in Table 68. Over 71 percent of Cycle 2H25 students attended API in order to earn a high school diploma, 20 percent in order to pass the GED tests, and less than 12 percent in order to raise their GT scores. Over 18 percent attended for their own personal satisfaction.

Table 68

Main Reason for Attending API

Responses	Number (N) responses	Percent of responses (N/74)	Percent of students (N/60)
High School diploma	43	58.11	71.66
GED	12	16.22	20.00
Raise GT score	7	9.46	11.67
Relieved from Army duties	0	0.00	0.00
Personal Satisfaction	11	14.86	18.33
Other	1	1.35	1.67
Total	74	100.00	123.33

Questionnaire item number twenty eight asked the student what were his future plans. The multiple responses are shown in Table 69. Fifty percent responded that they planned to continue their education, 20 percent were "Undecided," 13 percent planned to remain in the military service, and 28 percent planned to work in a technical field.

Table 69

Future Plans

Responses	Number (N) responses	Percent of responses (N/70)	Percent of students (N/60)
Continue education	30	42.86	50.00
Continue in service	8	11.43	13.33
Work in a technical field	17	24.29	28.33
Undecided	12	17.14	20.00
Other	3	4.28	5.00
Total	70	100.00	116.66

The Survey B student sources of information concerning API paralleled those for Survey A other than an increase of information received from friends which might be due to the longer time span the program had been offered at the Central Texas College campus site. The majority of the Survey B sample expressed the earning of a high school diploma and then continuing their education as their goal.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

The conclusions for the study are presented by survey. Attitudes of the students' impressions of API's strengths and weaknesses were identified and interpreted. Responses to the seven questions addressed by both surveys were summarized and suggestions for further study were recommended.

Survey A

The overall impression gained from the student questionnaire and conversations with API students at the First Cavalry Academy site were that the student had a very positive attitude toward the entire program offered by American Preparatory Institute. The sincerity and depth of the responses to the Suggestion Sheet indicated strong needs and desires for a successful school experience. The student adapted quickly to the informal and friendly atmosphere which API teachers tried to create in their classes and was encouraged in his learning efforts through individual attention and instruction. He was impressed with the personal interest given him by the counselor, office personnel, and the administrators. The fact that the student

recognized a difference in API's approach to education from the high school in which he was unsuccessful may be the most important factor in restoring the student's confidence in his own abilities.

The overall weaknesses in the program identified by Cycle 1H15 students included, in order of priority, the following needs: longer cycles, more courses, more understanding on part of military, better classroom conditions, more teachers, and more materials and textbooks in the classroom.

Survey B

The overall impression gained from the student questionnaire and conversations with the API students at Central Texas College campus site was one of positive response toward the entire program offered by American Preparatory Institute. It was noted that Survey B students, while being generally "content" with the program, were not as emotionally involved in reporting their reactions as were the Survey A students. One possible explanation for this different emotional response was the difference in cycle length--Survey A for six weeks and Survey B for twelve weeks. Another possible explanation was the trend of Survey B student reactions toward specific courses. Very few courses were selected as least liked, and large majorities of the students rated the courses as neutral. It should be noted that an additional explanation for these

differences and for the small percentage of students in Survey B responding to the Suggestion Sheet was due to its limited sample size.

Survey B results paralleled Survey A results thus providing a picture of the student as adapting quickly to the informal and friendly atmosphere, being encouraged by individual attention and instruction, and recognizing a difference in API's approach to education from the high school in which he was unsuccessful. These could be considered important factors in restoring the student's confidence in his own abilities.

The only area of student unhappiness was related to conflicting time demands experienced while attending school and satisfactorily performing military duties. Approximately 53 percent indicated they would prefer to attend school all day or only in the morning, rather than to attend school only in the afternoon.

Summary

This report presents the results for two surveys (Survey A and Survey B) of student attitudes toward American Preparatory Institute, a private high school for adults. Both surveys were conducted during the spring of 1975. The primary purpose of the surveys was to provide the school with information about student reactions toward program offerings and thus indicate areas where the instructional system might be improved.

The sample for Survey A consisted of 352 students enrolled in Cycle 1H15. All students enrolled in this cycle were to be included in the survey. Subject mortality was slight. The instruction for Cycle 1H15 was conducted at the First Cavalry Academy site, Fort Hood, Texas, for military personnel of First Cavalry Division. The cycle of instruction was six weeks in length with three (3) two-hour class periods per day, Monday through Friday. The first class period of the day began at 7:30 o'clock in the morning and the third class period began at 1:30 o'clock in the afternoon. Most of the students enrolled in Cycle 1H15 attended two or three classes each day. The counseling staff for the cycle consisted of one API counselor and six Fort Hood Army Education Center counselors.

The sample for Survey B consisted of 60 military students enrolled in Cycle 2H25. Subjects to be included in the survey were selected by use of simple random sampling procedures. The instruction for Cycle 2H25 was conducted at the Central Texas College campus site, thus removing the student from the military environment. The instructional period for this cycle consisted of two classes per day beginning at 12:30 o'clock in the afternoon and closing at 5:30 o'clock, Monday through Thursday, for twelve weeks. The counseling staff for this cycle consisted of one API instructor on site.

The instrument used to quantify the students' attitudes consisted of a twenty-nine item questionnaire which was developed for the study.

The results for the study indicated the following responses to the questions addressed by both surveys. These results may not be generalized beyond the two cycles involved in the study, Cycle 1H15 and Cycle 2H25.

Question One: What is the student's attitude toward the program as a whole? The students in both cycles exhibited a positive attitude toward the program and expressed a preference for the competency-based, continuous-progress instructional system.

Question Two: How does the student evaluate the effectiveness of instruction? The students perceived that their classroom time was used effectively, their skills and abilities had improved, general subjects were meaningful, and they had received individualized instruction. There was some indication that Survey B students found their subjects more meaningful than Survey A students.

Question Three: How does the student evaluate the program of study and curriculum? The students felt that the subjects were presented at the appropriate level, and individual needs and interests were generally met. Individual courses were evaluated differently by the students. Survey A students preferred reading, mathematics, and government and least preferred science and history. Survey B

students preferred career courses and reading while only mathematics and English were indicated as "least liked" by a sizable number of students. The responses did indicate the need for further investigation of the factors related to students' positive responses to some courses and negative responses to others.

Question Four: How does the student evaluate the counseling service? The students felt that counseling services were available, they understood the reasons for studying required subjects, and their future plans were helped by API. Approximately one half of the students understood the credit-granting system.

Question Five: How does the relationship between the military community and API affect the student's position of being simultaneously a student and a soldier? The students indicated some problems in fulfilling their military responsibilities and also their school responsibilities. The effect of these simultaneous responsibilities varies for each survey.

Question Six: Is the environment, both inside and outside the classroom conducive to learning? The environment inside the classroom was generally considered conducive to learning. However, at one site students indicated a desire for more teachers, better classroom facilities, and more materials and textbooks in class. Some students did indicate that the environment outside the classroom was

not conducive to learning. This response may be due to work and family obligations limiting the student's time.

Question Seven: What are the students' specific suggestions for improvement? The students from the six-week cycle in which career courses were not offered, suggested longer cycles, more courses, more understanding on the part of the military, better classroom facilities, more teachers, and more materials and textbooks in class. The students from the twelve-week cycle in which career courses were offered suggested more career courses, morning or all-day classes, and better understanding on the part of the military.

In summary, the surveys indicated that the following generalizations may be made concerning API's operations during the two cycles:

1. API was different from traditional high schools and the students liked this difference.

2. Courses were meaningful to the students, met their needs, and were effective.

3. Career preparation courses were well received by the students and more courses in career areas were requested.

4. Counseling services were available and functioned effectively.

Recommendations

Based upon the results, observations, and subsequent conclusions of this study, the researcher submits the following recommendations:

1. This study should be replicated for a six-week and a twelve-week cycle in order to strengthen the validity of the results.

2. In order to eliminate ambiguity, changes should be made in the wording of the testing instrument (a) items numbered 3, 4, 14, and 24, (b) alternative responses of items numbered 4, 6, 7, 8, 9, 17, and 22, and (c) Suggestions Sheet instructions.

3. Reliability and validity testing of the instrument should be made in order to be confident of its results as related to consistency and relevancy.

4. API should continue to have on-going evaluative research during its program development phase and afterwards in order to maintain effective flexibility and service to the area's population.

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APPENDIX

AMERICAN PREPARATORY INSTITUTE

"Student Questionnaire"

General Directions:

There is no time limit on this questionnaire. Do not spend too much time on any one question. Circle only one answer for questions 1-25. You may express more than one answer on questions 26-29. Any suggestions you have concerning the API program may be listed on the last sheet following the questionnaire. Your answers and suggestions will be strictly confidential.

When you have completed the questionnaire, check each question to be sure that you have responded to each. If you wish to change your response to any question, be sure to erase your first choice completely.

Be sure that you fill in your "SSN_____" at the top of the questionnaire. Be sure that you check all of the courses you have taken at API that are listed at the top of the questionnaire.

When you have completed the questionnaire and suggestion sheet, turn your paper over on top of your desk, place your pencil on the desk, and wait for instructions from the monitor.

AMERICAN PREPARATORY INSTITUTE (API)

"Student Questionnaire"

SSN_____

Courses taken at API: Reading_____ Math_____ History_____

English_____ Science_____ Government_____

Geography_____

DIRECTIONS: Circle the answer which best expresses your opinion or feelings. Your answers will be strictly confidential.

1. Is there a difference between API classes and other school classes you have attended while in the military service?

   yes no have not previously attended school while in the military

2. Is there a difference between API classes and school classes you have attended as a civilian?

   yes no

3. Would you return to API for additional classes?

   yes no

4. Do you think class time was used effectively?

   never some most all

5. Have your skills and abilities in the subject areas studied been improved?

   no very little some much

6. Have the subjects you studied been made meaningful to your life?

   never some most all

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Student Questionnaire

7. Did you receive individual help in classes?

never some most all

8. Were the subjects studied on your level of understanding?

never some most all

9. Did the subjects you studied meet your needs and interests?

never some most all

10. Which subject studied did you like most of all?

Science English Reading Math

Government History Geography

11. Which subject studied did you like least of all?

Science English Reading Math

Government History Geography

12. Which class that you attended did you like most of all?

Science English Reading Math

Government History Geography

13. Has API helped you in your plans for the future?

yes no

14. Do you understand the reasons why you studied the subjects you were required to take?

yes unsure no

15. Was a counselor available for you to talk with?

never sometimes often

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Student Questionnaire

16. When were you informed of the number of credits you needed to earn a diploma?

before class started | first week of class | towards end of cycle | never

17. How do you feel about the understanding of API's credit-granting systems?

impossible | confusing | easy

18. Do you feel that your commanding officers understand the educational program offered at API?

yes | sometimes | no

19. Do you feel that your commanding officer would approve your attending API for another cycle if you so desired?

yes | unsure | no

20. Have your military duties interfered with class attendance?

yes | no

21. What time would you prefer classes to be held?

all day | mornings only | afternoons only | after duty hours

22. Were your teachers friendly and willing to help you?

never | some | most | all

23. Were the rooms where you attended classes suitable for you to study in?

yes | no

24. Do you have a place to study outside the classroom?

yes | no

25. Would you like to see more courses offered by API?

yes | no

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Student Questionnaire

26. How did you learn about API?

Education Center counselor | C.O. | friend | posters or flyers

Recruiting Officer

What other source, if any? _____

27. What was your main reason for attending API?

High School diploma | GED | Raise GT score | Relieved from Army duties

Personal satisfaction

What other reason, if any? _____

28. What are your future plans?

Continue education | Continue in service | Work in a technical field | Undecided

29. Have you been assigned any of the following extra duty assignments while attending school?

Guard | C.Q. | Field | None

Other, if any? _____

STUDENT SUGGESTION SHEET

List your suggestions, if any, for the improvement of API in any areas not mentioned in the questionnaire.

SUGGESTED COURSE SHEET

List courses (subjects) that you would like API to offer.

VITA

Barbara Stodghill Summers was born near Mart, Texas on June 19, 1934, the daughter of Mattie Penick Stodghill and Vernon Hall Stodghill. In 1951, she graduated from Mart High School and in June, 1955 she received the degree of Bachelor of Arts in mathematics from Texas Christian University. She was employed as a teacher by the Fort Worth Independent School District, Killeen Independent School District, Mary Hardin Baylor College, Fort Hood Army Education Center, and Central Texas College. From 1956 to 1960, she was employed by Convair, a Division of General Dynamics, as an aero-physics engineer in the digital computing laboratory. Since the establishment of American Preparatory Institute on December 28, 1973, she has been employed there as a mathematics instructor. In June, 1974, she entered The Graduate School of American Technological University.

Permanent address: 1409 West Lane
Killeen, Texas

This research study was typed by Terry's Typing Service.